HCD-XGR6/XGR60

SERVICE MANUAL

Ver 1.0 2002.02

US Model
HCD-XGR6
E Model
HCD-XGR60



PHOTO :HCD-XGR60

- HCD-XGR6/XGR60 are the Amplifier, CD player, tape deck and tuner in LBT-XGR6/XGR60.

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM37B-30BD60C
	Base Unit Name	BU-30BD60C
	Optical Pick-up Name	A-MAX.3
TAPE Section	Model Name Using Similar Mechanism	NEW

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS
(LBT-XGR6 USA models only)
POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 6 ohm loads, both channels driven, from 120-10,000 Hz; rated 140 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milli watts to rated output.

Amplifier section
North American models:
LBT-XGR6
Continuous RMS power output (reference)
160 + 160 watts (6 ohms at 1 kHz, 10% THD)
Total harmonic distortion less than 0.07% (6 ohms at 1 kHz, 70 W)

Other models:
LBT-XGR60
The following measured at AC 120/220/240V, 50 Hz
DIN power output (rated) 150 + 150 watts (6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
200 + 200 watts (6 ohms at 1 kHz, 10% THD)

Inputs
DJ MIX RETURN*:
(phono jacks) sensitivity 250 mV, impedance 47 kilohms

GUITAR:
(phone jack) sensitivity 75 mV, impedance 470 kilohms

PHONO IN:
(phono jacks) sensitivity 3 mV, impedance 47 kilohms

MIX MIC:
(phone jack) sensitivity 1 mV, impedance 10 kilohms

GAME INPUT:
(phono jacks) sensitivity 250 mV, impedance 47 kilohms

MD (VIDEO) IN:
(phono jack) sensitivity 450 mV (250 mV), impedance 47 kilohms

Outputs
DJ MIX SEND*:
(phono jacks) sensitivity 250 mV, impedance 1 kilohms

PHONES:
(stereo phone jack) accepts headphones of 8 ohms or more

— Continued on next page —

COMPACT Hi-Fi STEREO SYSTEM

9-873-567-01
2002B0200-1

Sony Corporation
Home Audio Company
Published by Sony Engineering Corporation

SONY®

MD (VIDEO) OUT:
(phono jacks) voltage 250 mV
impedance 1 kilohms
FRONT SPEAKER: accepts impedance of 6 to 16 ohms

* North American and Mexican models only

CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser (λ=795 nm), Emission duration: continuous
Frequency response	2 Hz – 20 kHz (±0.5 dB)
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB

CD OPTICAL DIGITAL OUT
(Square optical connector jack, rear panel)

Wavelength:	660 nm
Output level	–18 dBm

Tape player section

Recording system	4-track 2-channel stereo
Frequency response	40 – 13,000 Hz (±3 dB), using Sony TYPE I cassette

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range

North American models:	87.5 – 108.0 MHz (100 kHz step)
Other models:	87.5 – 108.0 MHz (50 kHz step)
Antenna	FM lead antenna
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range

Pan- American models:	530 – 1,710 kHz (with the interval set at 10 kHz) 531 – 1,710 kHz (with the interval set at 9 kHz)
Other models:	531 – 1,602 kHz (with the interval set at 9 kHz) 530 – 1,710 kHz (with the interval set at 10 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

General

Power requirements

North American models:	120 V AC, 60 Hz
Mexican model:	120 V AC, 60 Hz
Other models:	120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector

Power consumption

U.S.A. models:	
LBT-XGR6	240 watts
Other models:	
LBT-XGR60	180 watts
Dimensions (w/h/d)	Approx. 355 x 425 x 451 mm
Mass :	
LBT-XGR6	Approx. 13.0 kg
LBT-XGR60	Approx. 14.7 kg
Supplied accessories:	AM loop antenna (1) FM lead antenna (1) Speaker cords (2) Speaker pads (8) Remote commander (1) Batteries (2)

Design and specifications are subject to change without notice.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of soldering iron around 270˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLING.
VORSICHT : UNSICHTBARE LASERSTRAHLUNG. WENN ABDECKUNG GEÖFFNET UND SICHEREITSVERRIEGELUNG ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.
VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING : OSYNLING LASERSTRÅLING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.
ADVERSEL : USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VIGYAZAT! : A BURKOLAT NYITÁSAKOR LÁTHATATLAN LÉZERSUGÁRVESZÉLY! KERÜLJE A BESUGÁRZÁST!

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.

2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

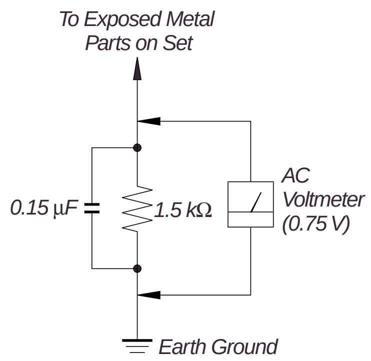


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

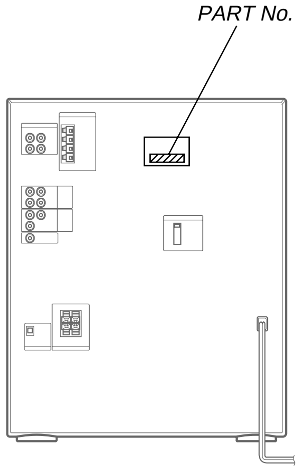
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the "S curve check" in "CD section adjustment" and check that the S curve waveforms is output three times.

• MODEL IDENTIFICATION

– Rear Panel –



MODEL	PARTS No.
US model	4-237-748-0☐
E model	4-237-748-2☐
E51 model	4-237-748-3☐
Mexican model	4-237-748-4☐
Argentina model	4-237-748-5☐

- Abbreviation
  E51 : Chilean and Peruvian model

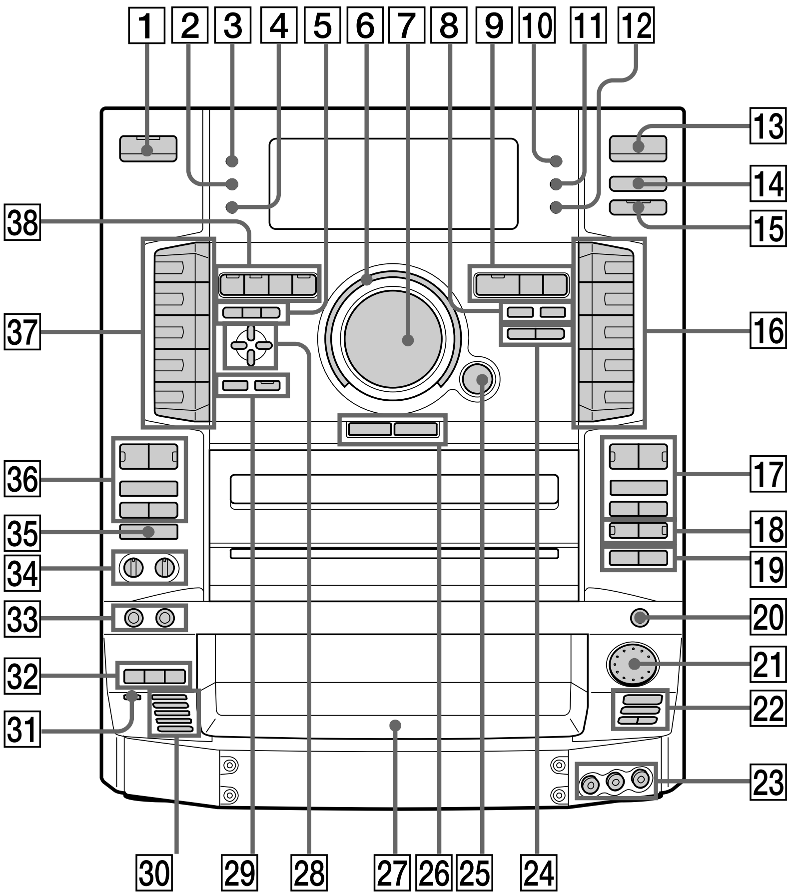
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This section is extracted from instruction manual.

Mainunit

ALPHABETICALORDER



This section is extracted from instruction manual.

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SPECTRUM ANALYZER 4 (20)
SUPER WOOFER 38 (16)
SUPER WOOFER MODE 38 (16)
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TIMER SELECT 11 (16, 19)
TUNER/BAND 9 (11, 12)
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BUTTON DESCRIPTIONS

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◁/▷ 17 36
■ 17 36
⏮◀◀ /▶▶⏭ 17 36
❚❚ 18
● REC 18
▷❚❚ 22
■ 22
◀◀ /▶▶ 22
↑/↓/←/→ (cursor) 28

Remote control

ALPHABETICALORDER

C – F

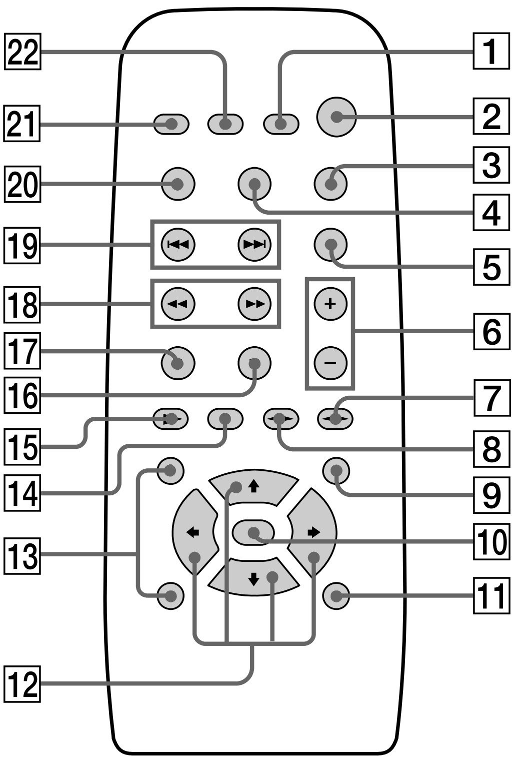
CD ▶ 15 (9)
CLEAR 4 (10)
CLOCK/TIMER SELECT 22 (16, 19)
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DISC SKIP 20 (9, 10)
DISPLAY 11 (23)
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FUNCTION 3 (7, 9, 10, 14, 20, 22, 26)

P – V

PRESET - /+ 19
SLEEP 21 (18)
SURROUND 5 (18)
TUNER/BAND 14 (11, 12)
TUNING - /+ 18 (11, 12)
VOL +/- 6 (10)

BUTTON DESCRIPTIONS

I/⏻ 2
◀▶ 7 8
↑/↓/←/→ (cursor) 12
■ 16
❚❚ 17
◀◀/▶▶ 18
⏮◀◀ /▶▶⏭ 19



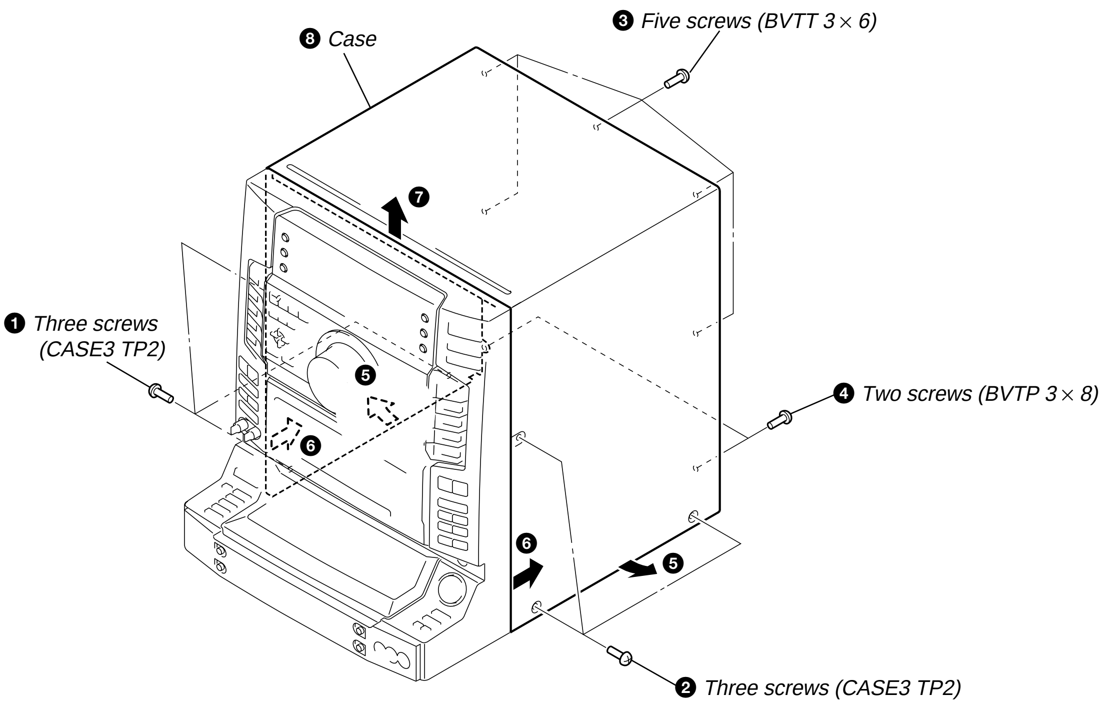
SECTION 2
DISASSEMBLY

• The equipment can be removed using the following procedure.

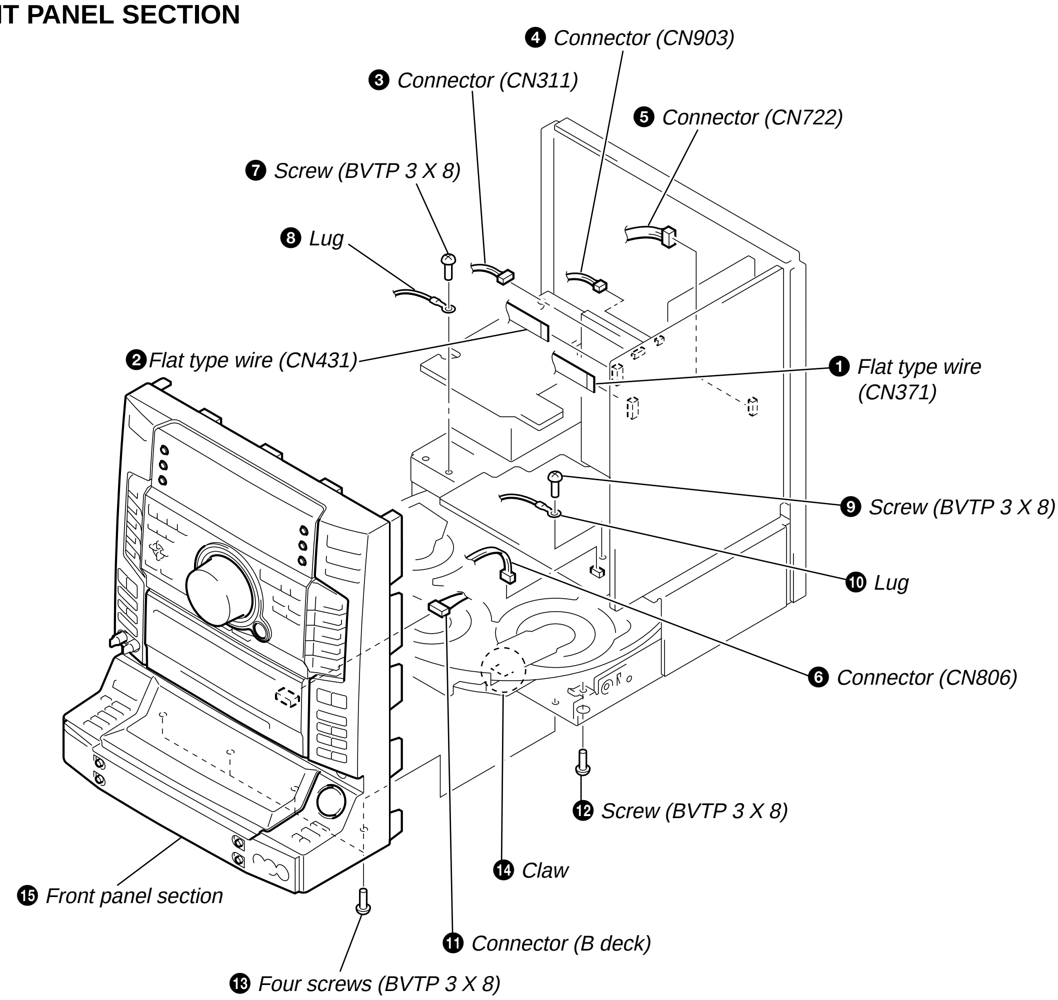
- Set → Case
  - → Front panel section
    - → Tape mechanism deck
    - → PANEL FL board, TC-A board, TC-B board
    - → PANEL VR board
    - → MIC/GUITAR board, HEADPHONE board
    - → FRONT INPUT board → D-SW board, CD-L board, Lid (CD) assy, CD-R board
  - → Back panel, DC fan, MAIN board
  - → CD mechanism deck (CDM37B-30BD60C)
    - → Base unit-1 (BU-30BD60C) → Base unit-2 (BU-30BD60C) → BD board
    - → Disc table

Note : Follow the disassembly procedure in the numerical order given.

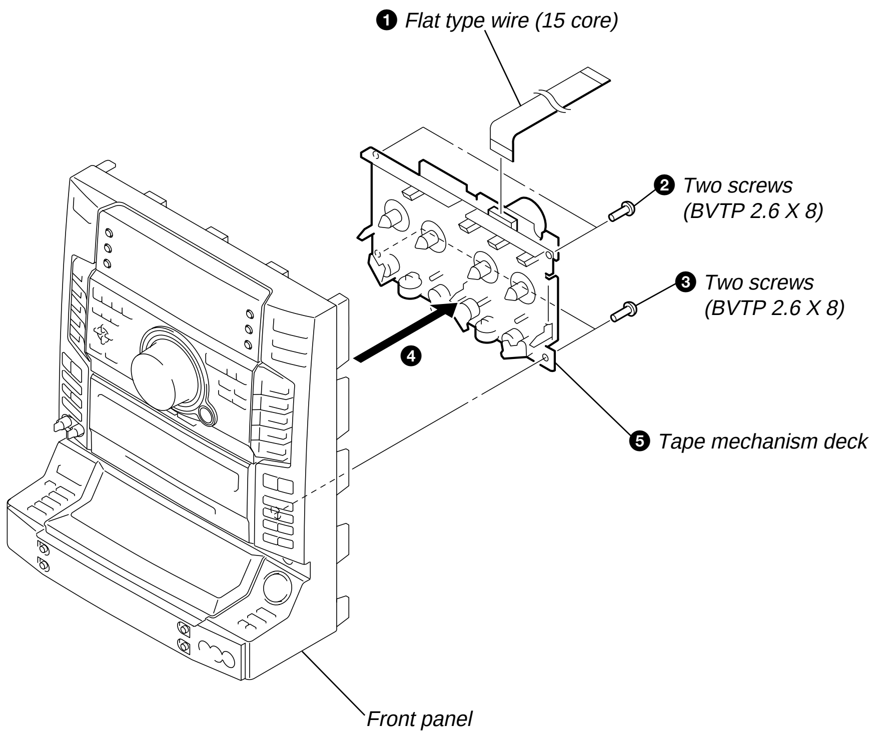
2-1. CASE



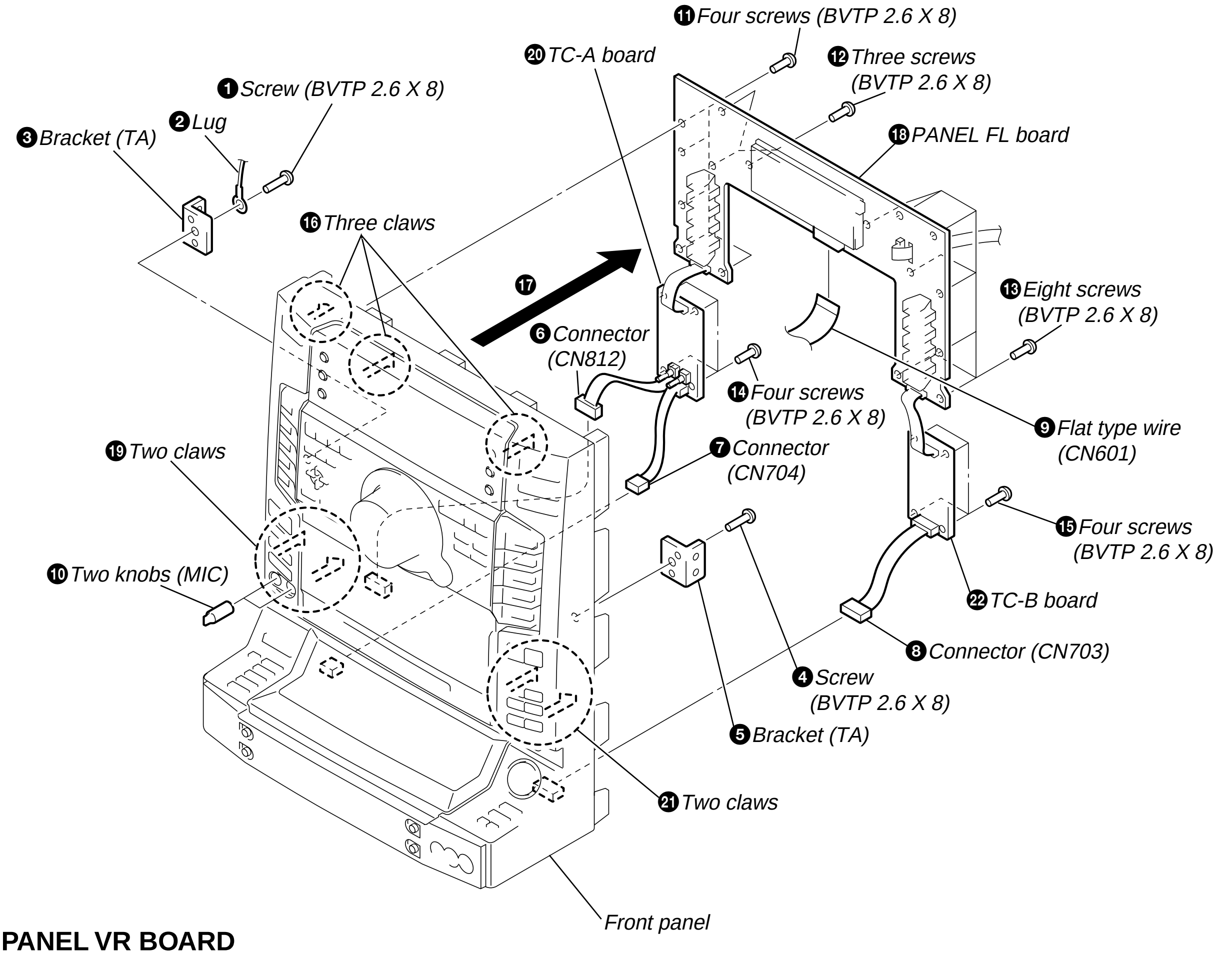
2-2. FRONT PANEL SECTION



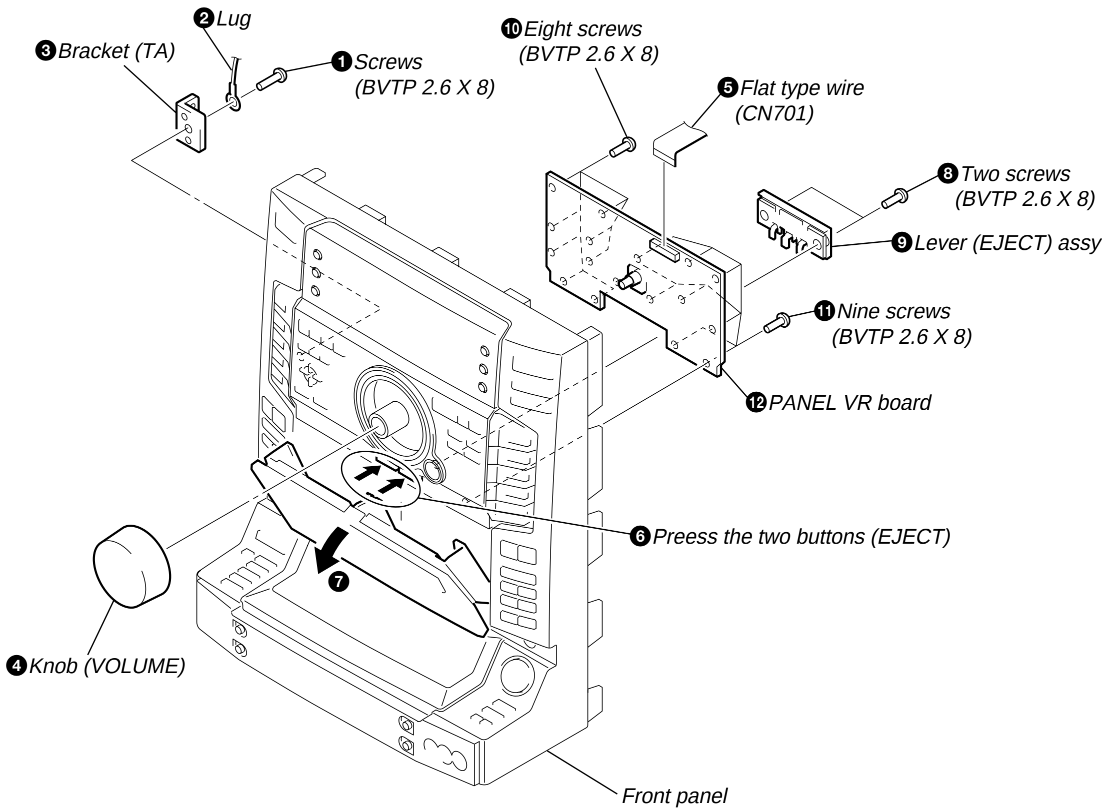
2-3. TAPE MECHANISM DECK



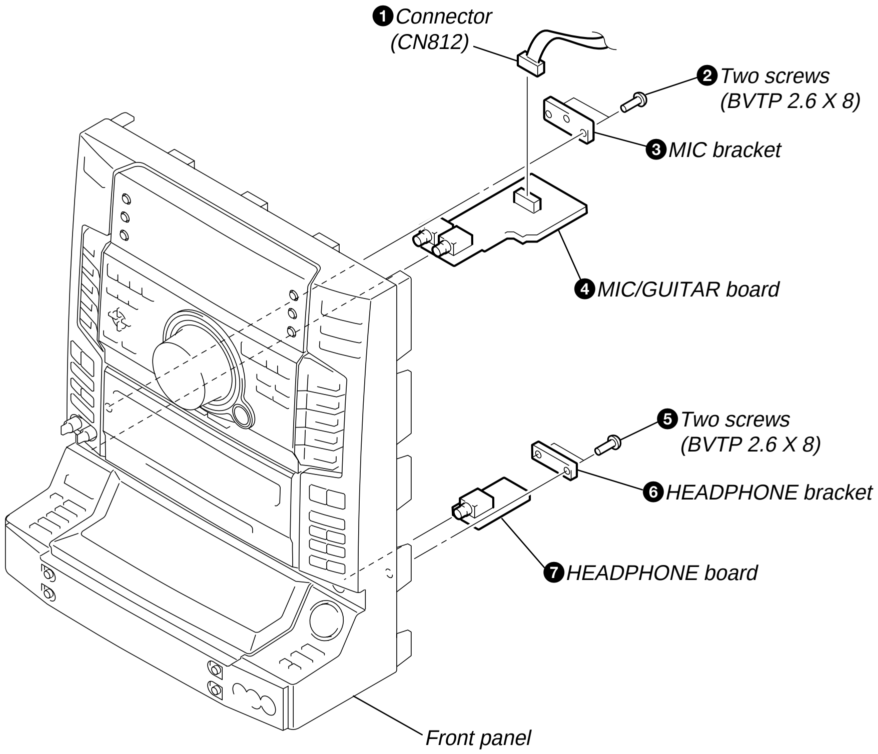
2-4. PANEL FL BOARD, TC-A BOARD, TC-B BOARD



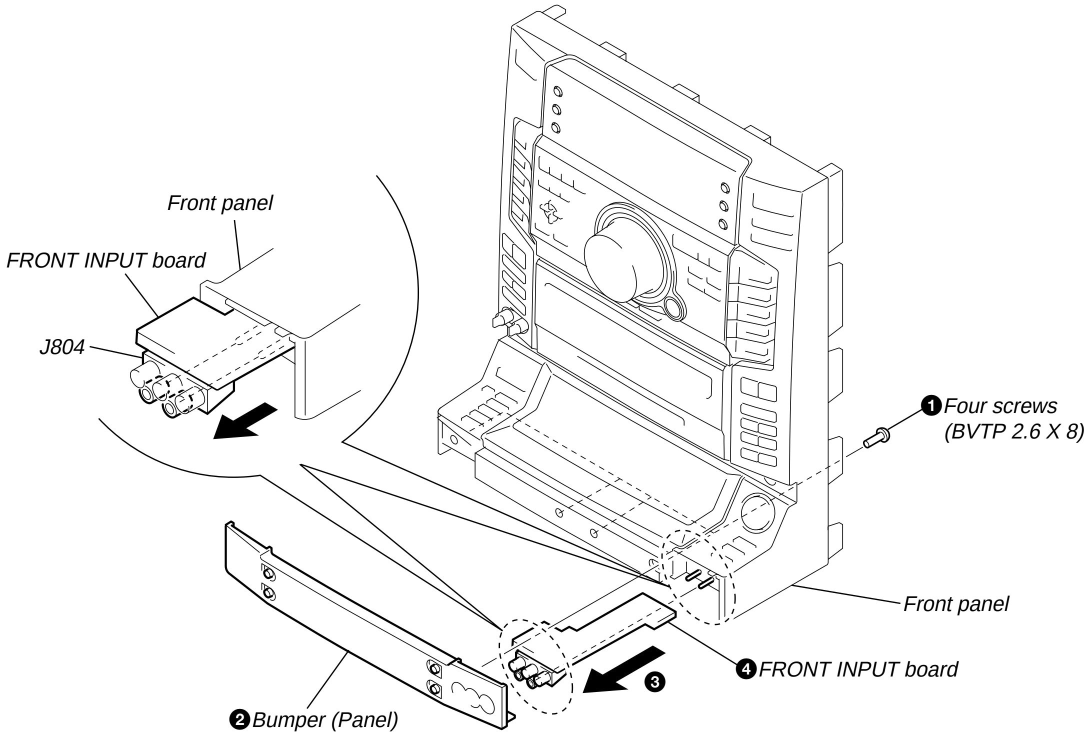
2-5. PANEL VR BOARD



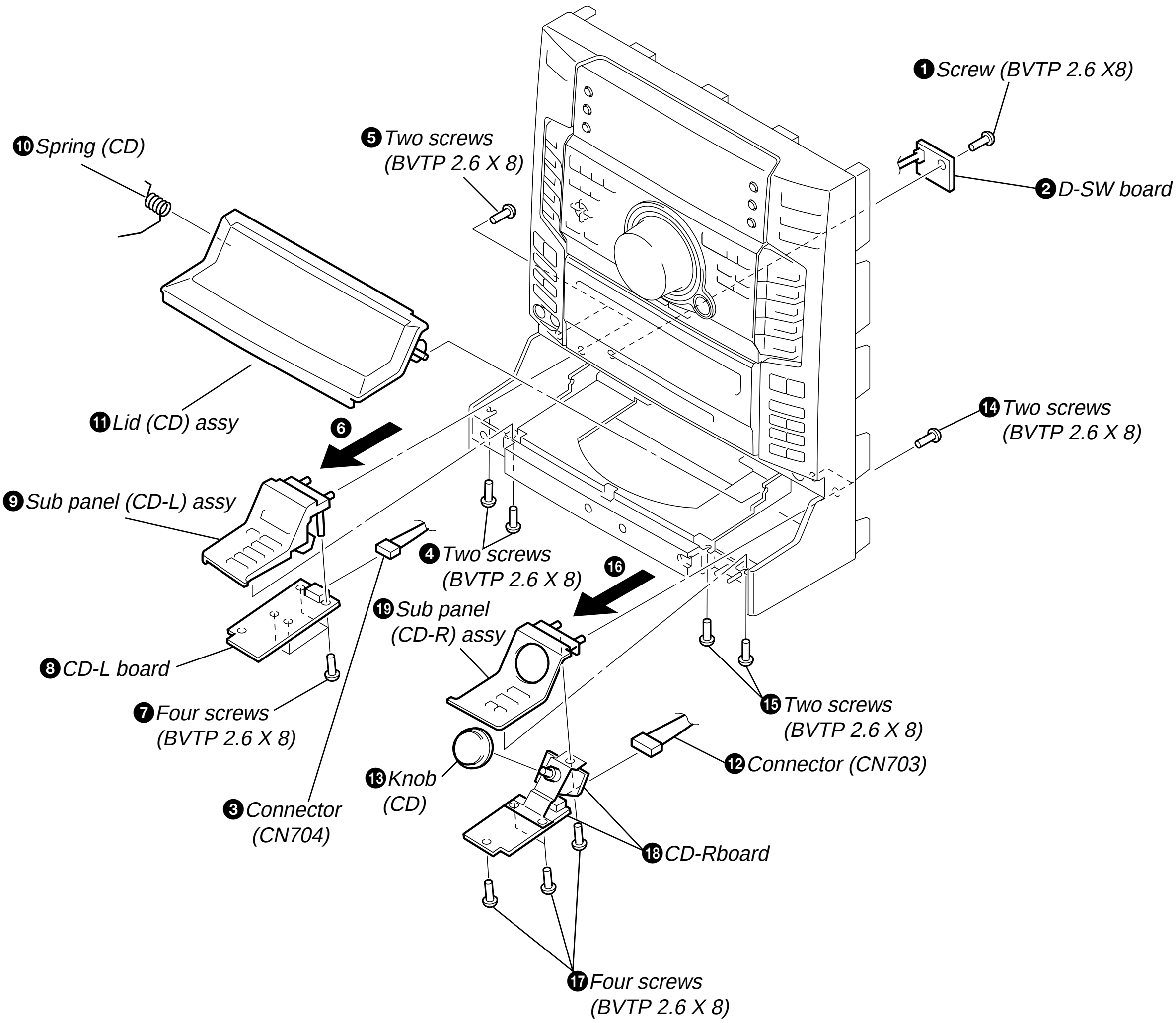
2-6. MIC/GUITAR BOARD, HEADPHONE BOARD



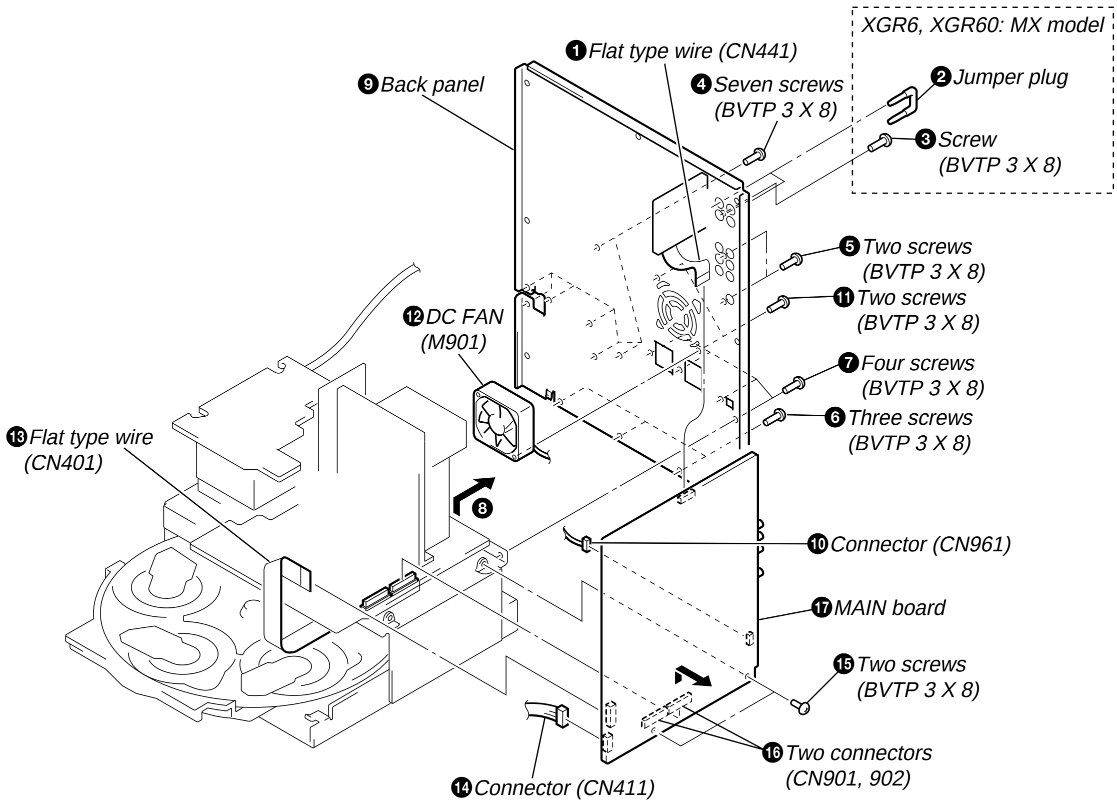
2-7. FRONT INPUT BOARD



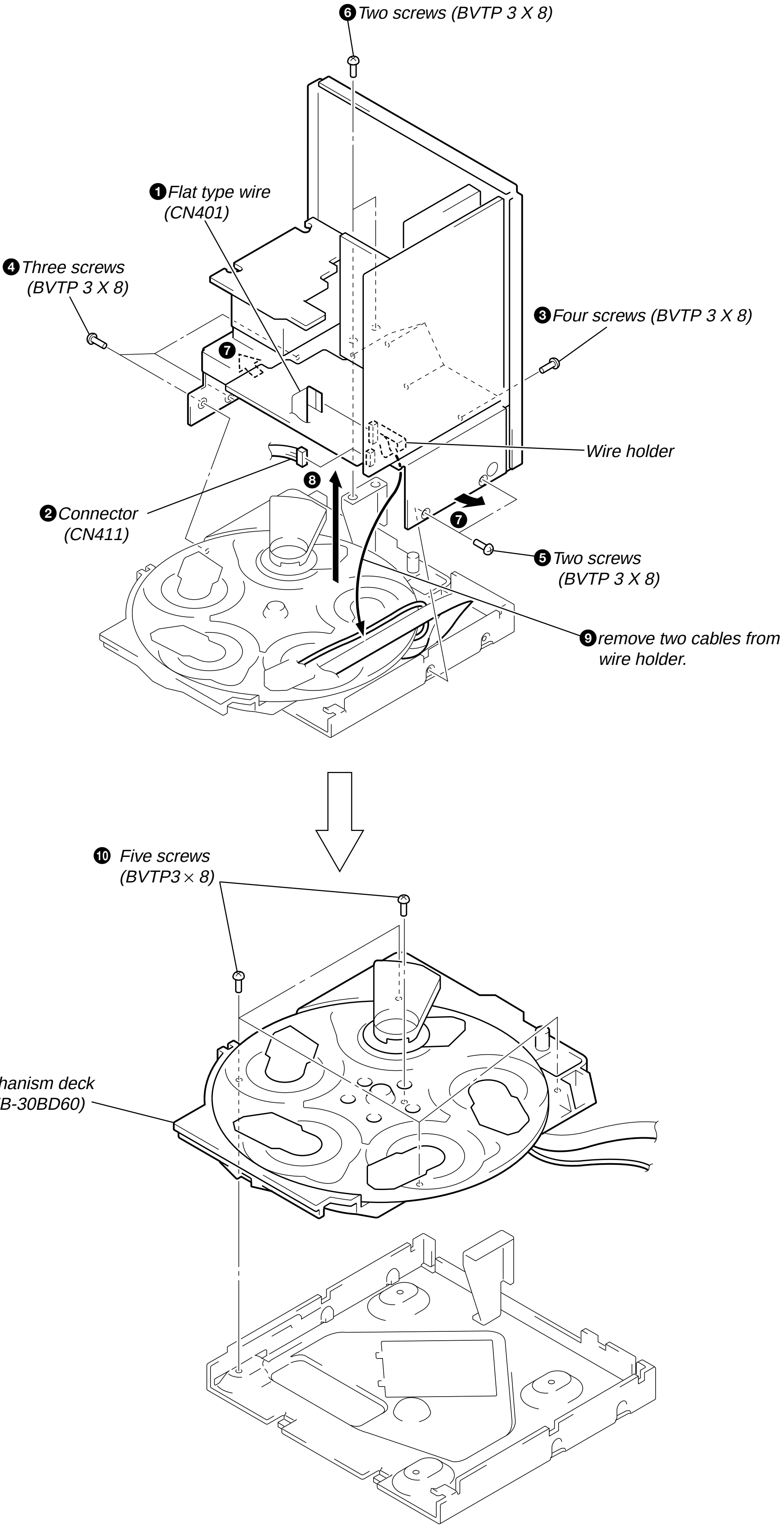
2-8. D-SW BOARD, CD-L BOARD, LID (CD) ASSY, CD-R BOARD



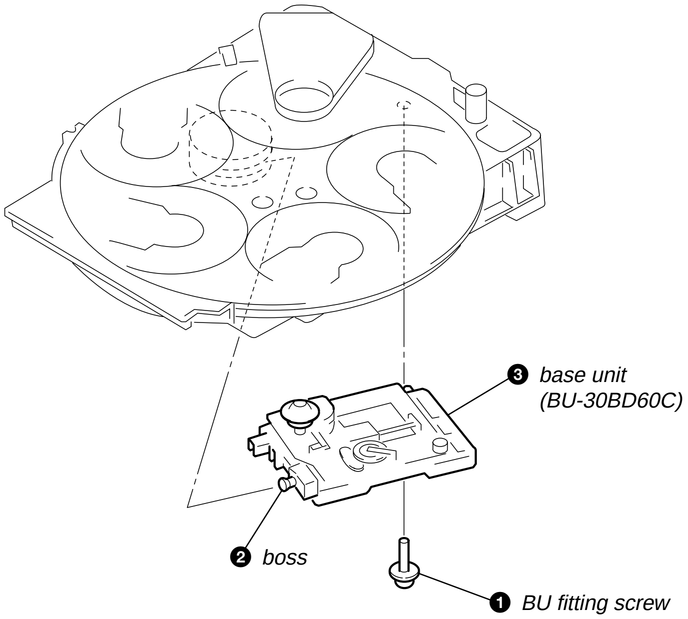
2-9. BACK PANEL, DC FAN, MAIN BOARD



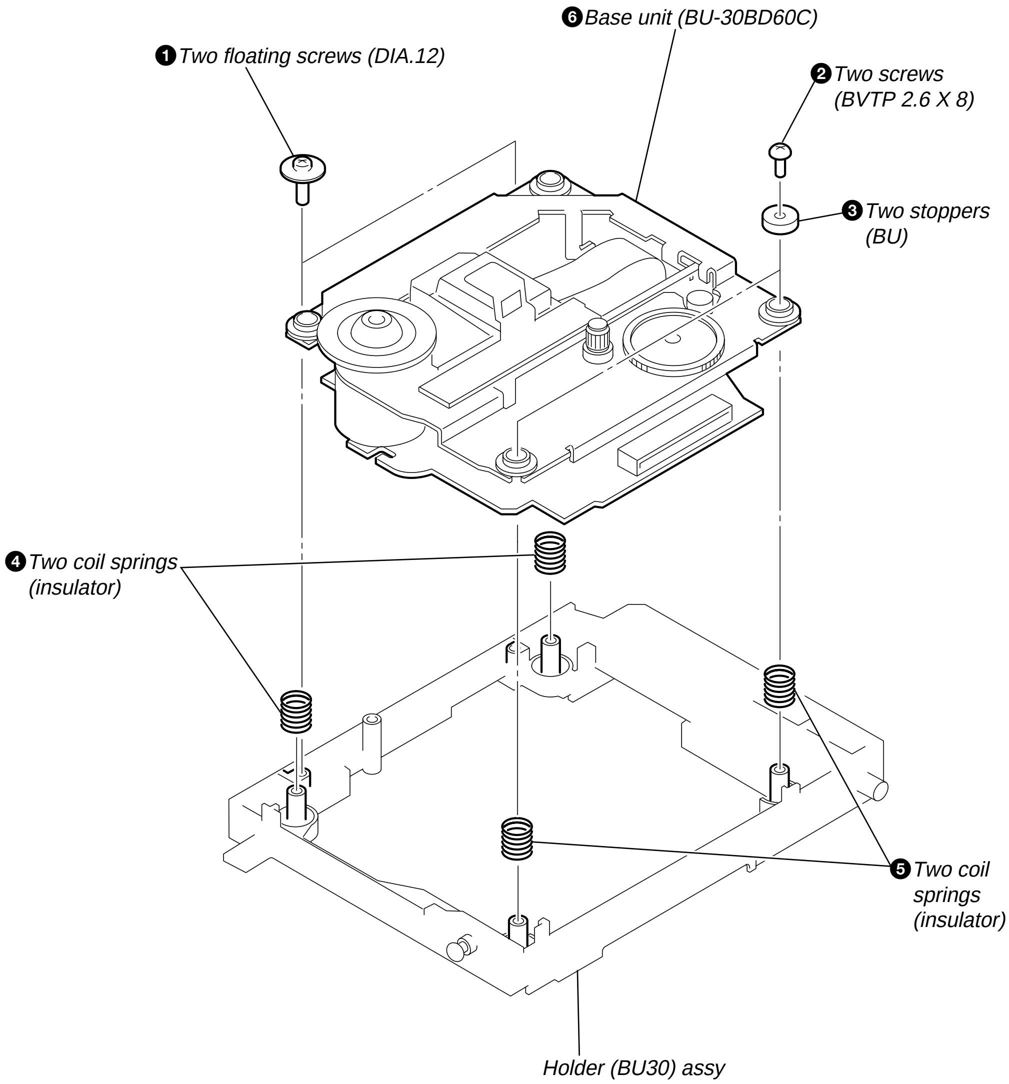
2-10. CD MECHANISM DECK (CDM37B-30BD60C)



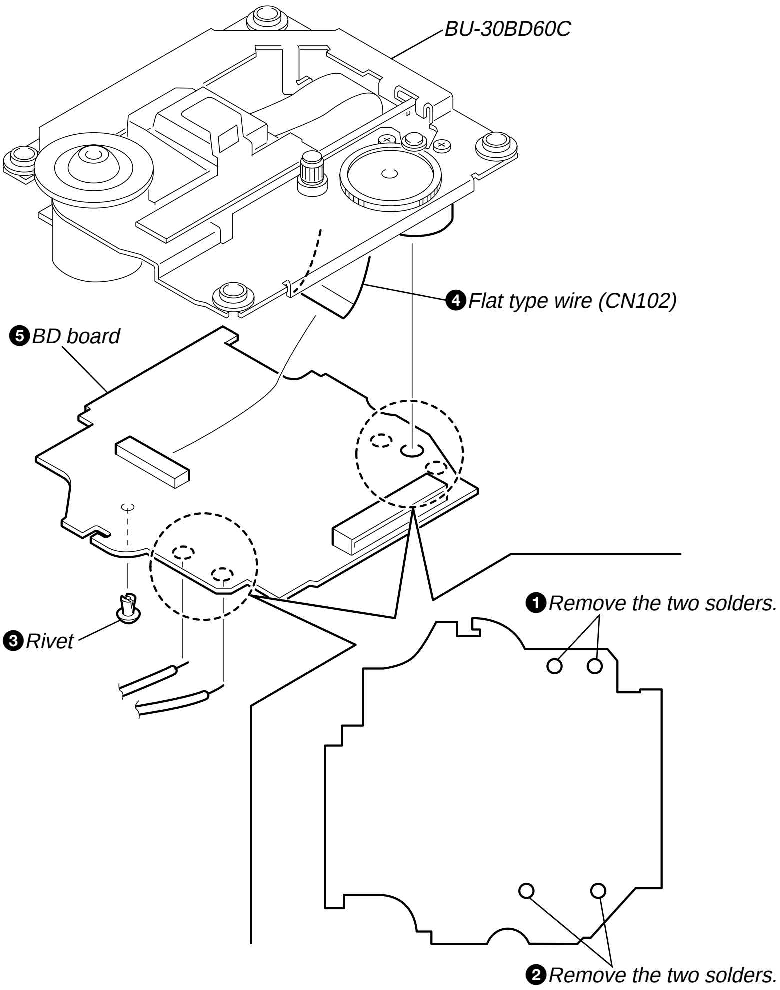
2-11. BASE UNIT-1 (BU-30BD60C)



2-12. BASE UNIT-2 (BU-30BD60C)

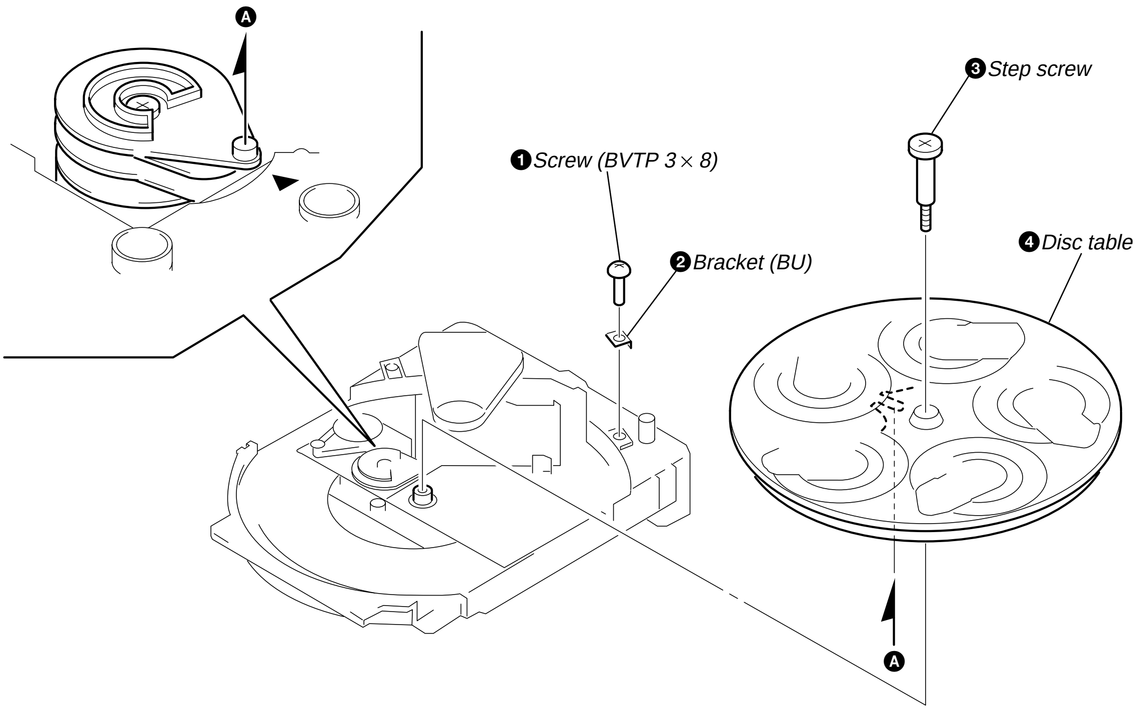


2-13. BD BOARD



2-14. DISC TABLE

Note: When the disc table is installed, adjust the positions of roller cam and mark ▶ as shown in the figure, then set to the groove of disc table.



SECTION 3
TEST MODE

[MC Cold Reset]

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Turn the power ON or set to the DEMO mode.
2. Press three buttons of ⊙/CLOCK SET , TUNER ENTER, and I/⏻ simultaneously.
3. The set is reset, and displays "COLD RESET", then becomes DEMO mode.

[Change-over the AM Tuning Interval]

- The AM tuning interval can be changed over 9 kHz or 10 kHz.

Procedure:

1. Press the I/⏻ button to turn the power ON.
2. Select the function "TUNER", and press the TUNER/BAND button to select the BAND "AM".
3. Press the I/⏻ button to turn the power OFF.
4. Press the ENTER/NEXT and I/⏻ buttons simultaneously, and the display on the fluorescent indicator tube changes to "AM 9 K STEP" or "AM 10 K STEP", and thus the tuning interval is changed over.

[CD Ship Mode] (No memory clear)

- This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press the I/⏻ button to turn the power ON.
2. Press the EDIT and I/⏻ buttons simultaneously.
3. A message "LOCK" is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

[LED and Fluorescent Indicator Tube All Lit, Key Check Mode]

Procedure:

1. Press three buttons of ⊙/CLOCK SET , ENTER/NEXT , and DISC 2 simultaneously.
2. LEDs and fluorescent indicator tube are all turned on.
3. Press the DISC 1 button, the MODE and DESTINATION are displayed fluorescent indicator tube.
4. Each time the DISC 1 button is pressed, the MC/GC category version is displayed in the following order.
5. Press the DISC 2 button, and the key check mode is acti-vated.

→ NR → MC → GC → CD → CDDM → CDMA → CDMB → BDA → BDB → ST → TA → TM → TC → (back to NR)

6. In the key check mode, the fluorescent indicator tube displays "K 0 J0 V0". Each time a button is pressed, "K" value in-creases to "K69"call the button is pressed.However, once a button is pressed, it is no longer taken into account.
   "J" value increases like 1, 2, 3 ... if turn the ⏮ AMS ⏭ JOG dial clock-wise,or it decreases like 0, 9, 8 ... if turn the ⏮ AMS ⏭ JOG dial counter-clockwise.
   "V" value increases like 1, 2, 3 ... if turn the VOLUME dial clockwise ("+" direction), or it decreases like 0, 9, 8 ... if turn the VOLUME dial counterclockwise ("–" direction).
7. To release from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

[Sled Servo Mode] (CD service mode)

- This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the pick-up.

Procedure:

1. Select the function "CD".
2. Press three buttons ⊙/CLOCK SET , TUNER ENTER, and DISC 5 simultaneously.
3. The Sled Servo mode is selected, if "CD" is blanking on the fluorescent indicator tube.
4. With the CD in stop status, press ⏩ button in CD section to move the pick-up to outside track, or ⏪ button to inside track.
5. To exit from this mode, press I/⏻ button turn to the power OFF.

Note:

- Always move the pick-up to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
- Do not run the sled motor excessively, otherwise the gear can be chipped.

[Change-over of FUNCTION Name]

- The FUNCTION name of external input terminal can be changed over to VIDEO or MD. With the FUNCTION selected to "MD", about 5dB mute is applied to the input gain.

Procedure:

1. Press I/⏻ button to turn the power OFF.
2. Press I/⏻ button together with FUNCTION button for several seconds, and the power is turned on, the display of fluorescent indicator tube changes to "MD" or "VIDEO" instantaneously, and thus the FUNCTION is changed over.

[Aging Mode]

This mode can be used for operation check of tape deck section. Tape deck section work in parallel.

- If an error occurred:
  The aging operation stops and display then status.
- If no error occurs:
  The aging operation continues repeatedly.

Procedure:

1. Load the tapes into the decks A and B respectively.
2. Press the FUNCTION button to select the function "CD".
3. Press the PLAY MODE button to set the "ALL DISCS" mode, and press the REPEAT button to "REPEAT" off.
4. Press three buttons of ⊙/CLOCK SET , TUNER ENTER , and DISC 4 simultaneously.
5. The aging mode is activated, if the indicator of disc tray num-ber on the fluorescent indicator tube is blinking.
6. To release from the aging mode, press the I/⏻ button to turn the power OFF and operate the cold reset. (Refer to the "MC Cold Reset")

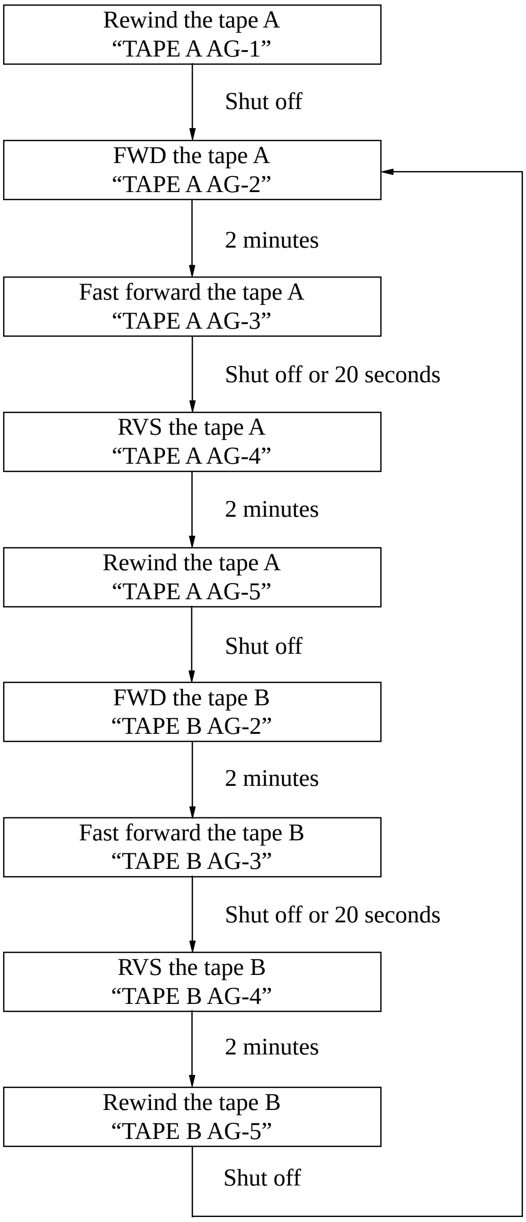
1. Display at the Aging Mode

- Display operating state of tape deck section alternately.
- If an error occurred, stop display.

2. Tape Deck Section

- The sequence during the aging mode is following as below.
- If an error occurred, stop display that step.

Aging mode sequence (Tape deck section):

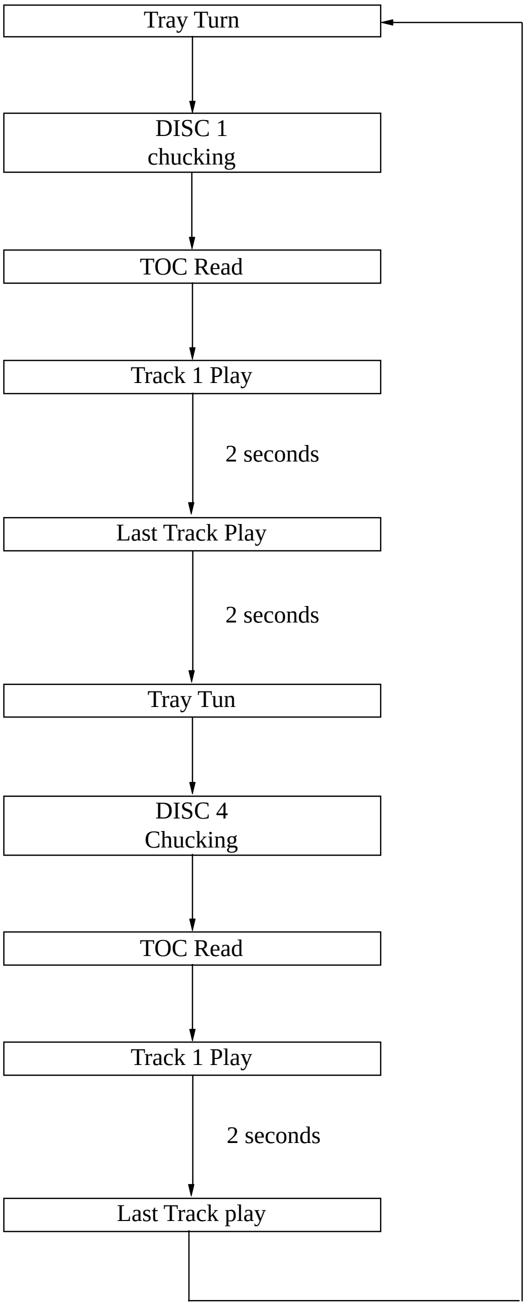


Note: "TAPE ∗ AG- ∗ " is display of each step.

3. CD Section

- The sequence during the aging mode is following as below.
- If an error occurred, stop display that step.

Aging mode sequence (CD section):



[VACS ON/OFF]

- The volume control by VACS is turned ON/OFF.

Procedure:

1. Press the [I/⏻] button to turn the power ON.
2. Press the [PLAY MODE] and [I/⏻] buttons simultaneously.
3. The reaction display appears when switcing ON/OFF.

SECTION 4
MECHANICAL ADJUSTMENTS

Precaution

1. Clean the following parts with a denatured alcohol-moistened swab:

record/playback heads	pinch rollers
erase head	rubber belts
capstan	idlers

2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Mode	Torque Meter	Meter Reading
FWD	CQ-102C	2.9~6.9 mN•m (30 to 70 g•cm) (0.42 – 0.97 oz•inch)
FWD back tension	CQ-102C	0.19~0.59 mN•m (2 to 6 g•cm) (0.03 – 0.08 oz•inch)
FF/REW	CQ-201B	7.8~16.7 mN•m (80 to 170 g•cm) (1.11 – 2.36 oz • inch)

SECTION 5
ELECTRICAL ADJUSTMENTS

DECK SECTION 0 dB = 0.775 V

Precaution

1. Demagnetize the record/playback head with a head demagnetizer.
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjust.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.
7. Switches and controls should be set as follows unless otherwise specified.
8. Set to the DOLBY NR OFF.
9. Set to the test mode.
   (1) Press the I/⏻ button to turn the power ON.
   (2) Select the function “TAPE A or B”.
   (3) Press the button of ⌚/CLOCK SET , TUNER ENTER, and DISC 3 simultaneously, to set the tape deck test mode and displays “TEST MODE” on the fluorescent indicator tube.
   (4) To release from the test mode, press the I/⏻ button.

• Test Tape

Tape	Signal	Used for
P-4-A100	10 kHz, – 10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Playback Level Adjustment

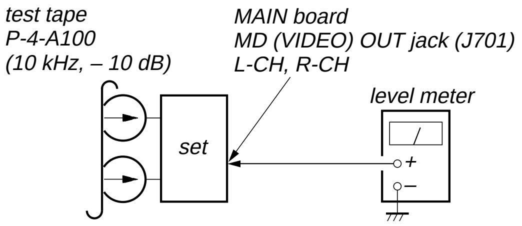
Record/Playback Head Azimuth Adjustment

DECK A **DECK B**

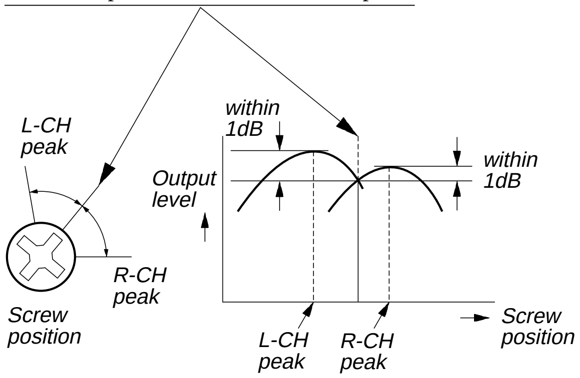
Note: Perform this adjustments for both decks

Procedure:

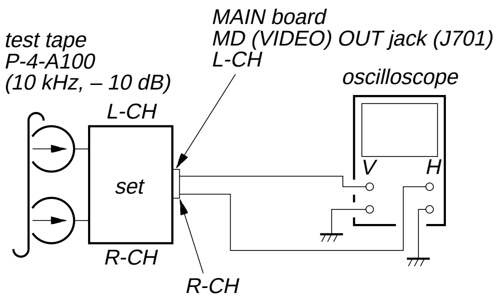
1. Mode: Playback (FWD)

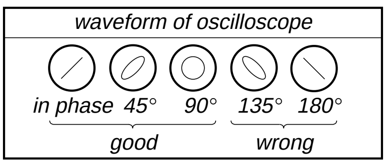


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1dB of peak.



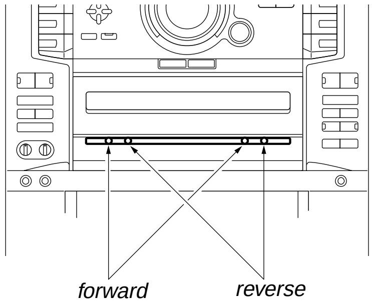
3. Mode: Playback





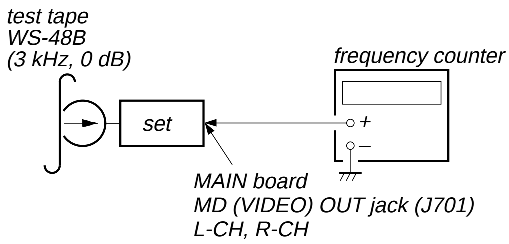
4. Repeat step 1 to 3 in playback (REV) mode.
5. After the adjustments, apply suitable locking compound to the pats adjusted.

Adjustment Location: Playback Head (Deck A).
Record/Playback/Erase Head (Deck B).



Tape Speed Adjustment DECK B

Mode: Playback



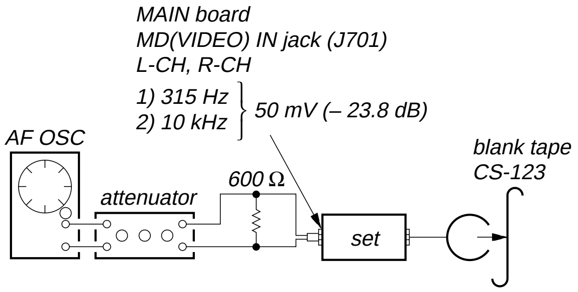
1. Insert the WS-48B into the deck B.
2. Press the [▷] button on the deck B.
3. Press the [H SPEED DUB] button in playback mode.
   Then at HIGH speed mode.
4. Adjust RV392 on the LEAF SW board do that frequency counter reads 6,000 ± 180 Hz.
5. Press the [H SPEED DUB] button.
   Then back to NORMAL speed mode.
6. Adjust RV391 on the LEAF SW board so that frequency counter reads 3,000 ± 90 Hz.

Adjustment Location: MAIN board
Sample value of Wow and Flutter: 0.3% or less W.RMS (JIS)
(WS-48B)

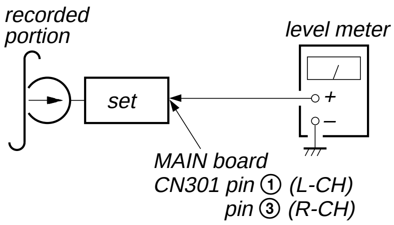
REC Bias Adjustment DECK B

Procedure:

1. Mode: Record
   FUNCTION: VIDEO



2. Mode: Playback



3. Confirm playback the signal recorded in step 1 become specification values as follows.
   If these values are out of specification values, adjust the RV321 (L-CH) and RV322 (R-CH) on the MAIN board to repeat steps 1and 2.

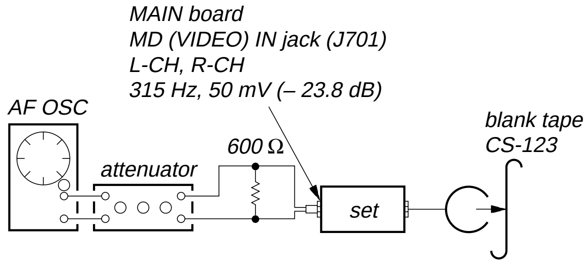
Adjustment level: The playback output of 10kHz level difference against 315 Hz reference should ±0.5 dB.

Adjustment Location: MAIN board

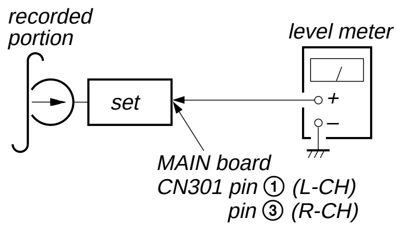
REC Level Adjustment DECK B

Procedure:

1. Mode: Record
   FUNCTION: VIDEO



2. Mode: Playback



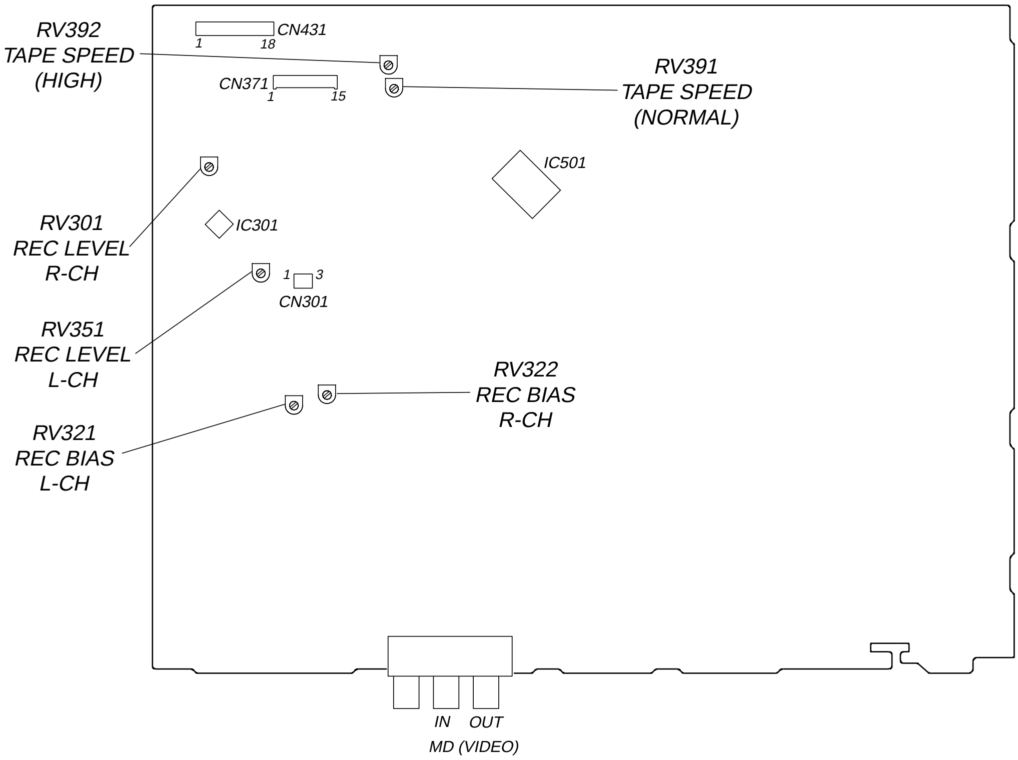
3. Confirm playback the signal recorded in step 1 become specification values as follows.
   If these values are out of specification values, adjust the RV351 (L-CH) and RV301 (R-CH) on the MAIN board to repeat steps 1 and 2.

Specification values:

CN301 playback level: 47.2 to 53.0 mV (– 24.3 to – 23.3 dB)

Adjustment Location: MAIN board

– MAIN BOARD (Component Side) –

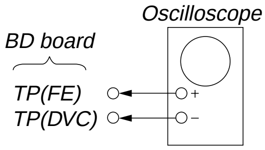


CD SECTION

Note :

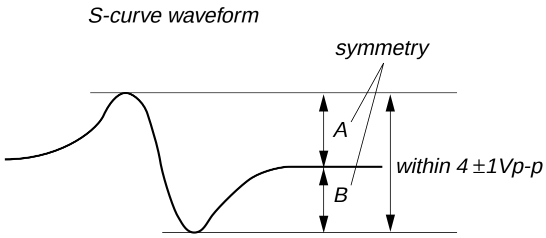
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use LUV-P01 (4-999-032-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10M impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S-Curve Check



Procedure :

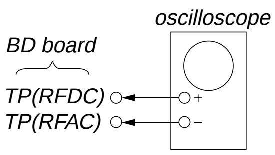
1. Connect oscilloscope to TP (FE).
2. Connect between TP (FE) and TP (DVC (≒ 1.65 V) by lead wire.
3. Press the [I/⏻] button to turn the power ON.
4. Load a disc (LUV-P01) and actuate the focus search. (In consequence of open and close the disc tray, actuate the focus search)
5. Confirm that the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 2 ±0.5 Vp-p.



6. After check, remove the lead wire connected in step 2.

Note : • Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
• Take sweep time as long as possible and light up the brightness to obtain best waveform.

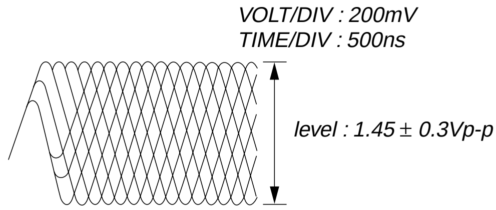
RF Level Check



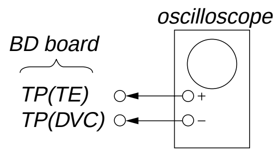
Procedure :

1. Connect oscilloscope to TP2 (RFDC) and TP1 (RFAC).
2. Press the [I/⏻] button to turn the power ON.
3. Load a disc (LUV-P01) and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note: Clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.

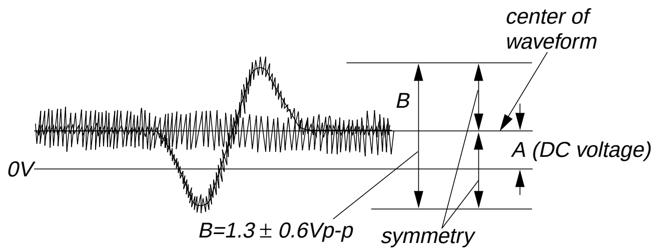


E-F Balance (1 Track jump) Check



Procedure:

1. Connect oscilloscope to TP (TE) and TP (DVC) board.
2. Press the [I/⏻] button to turn the power ON.
3. Load a disc (LUV-P01) and playback the number nine track.
4. Press the [◀▶] button. (Becomes the 1track jump mode.)
5. Confirm that the level B and A (DC voltage) on the oscilloscope waveform.

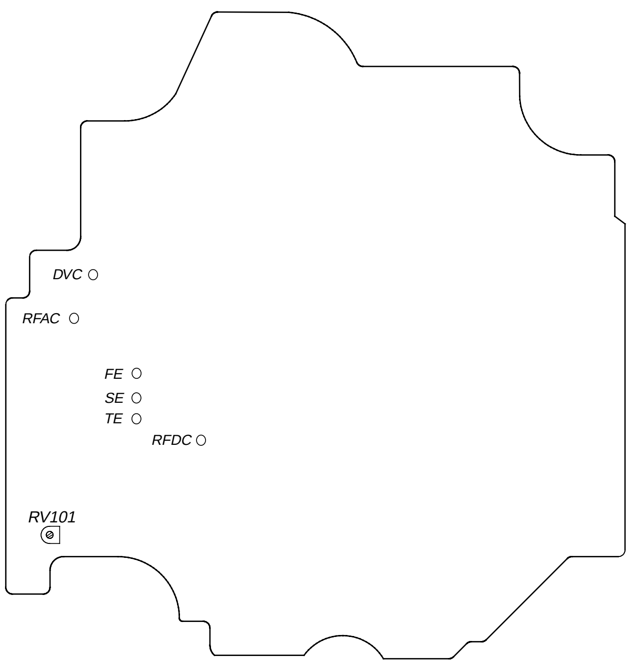


Specified level: $\frac{A}{B} \times 100$=less than – 22%

6. Adjust RV101 so that A (DC voltage) becomes 0.

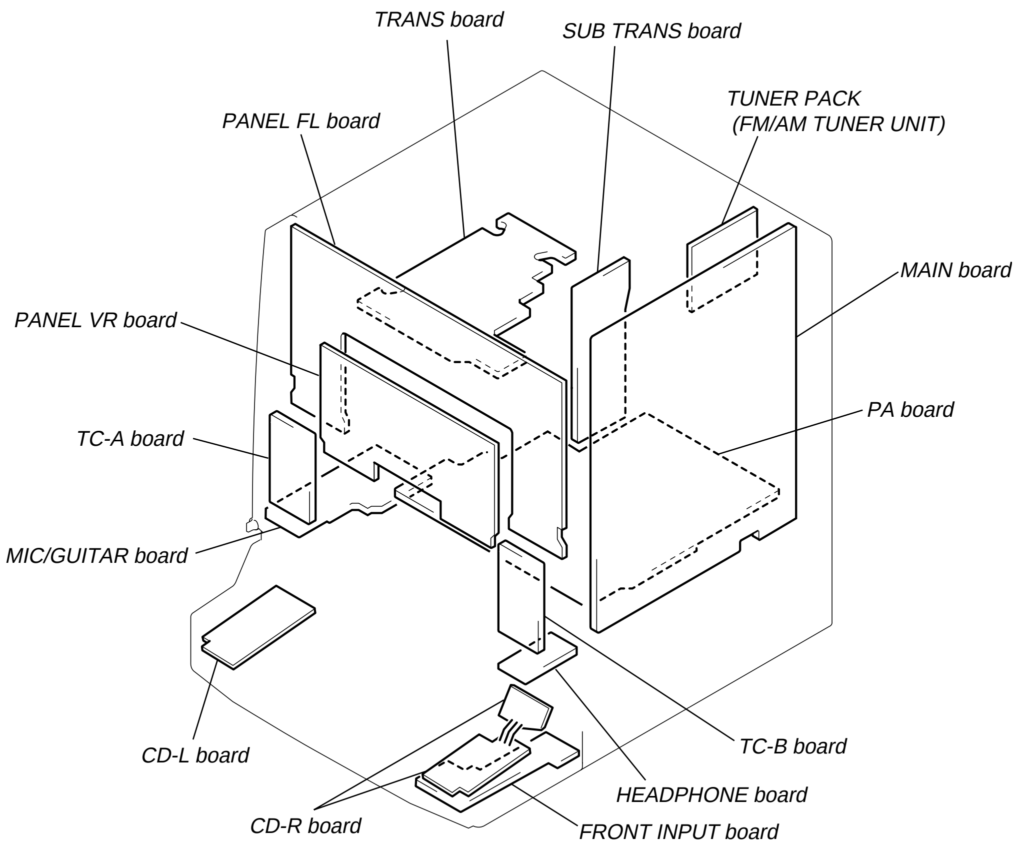
Checking Location:

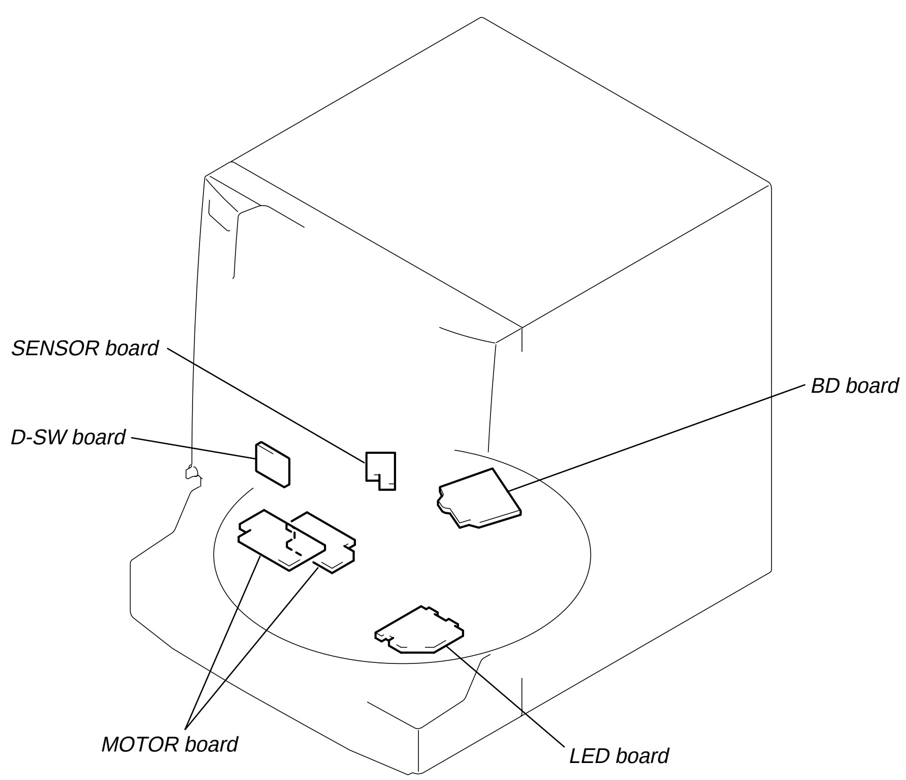
[BD BOARD]



SECTION 6
DIAGRAMS

6-1. CIRCUIT BOARD LOCATION





Note on Schematic Diagram:

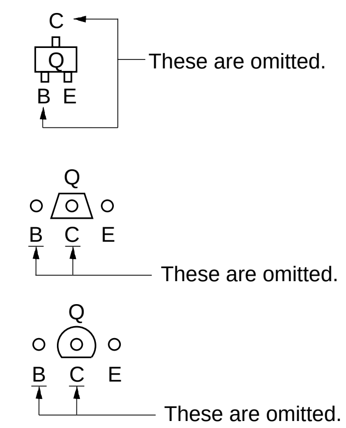
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¹/₄ W or less unless otherwise specified.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

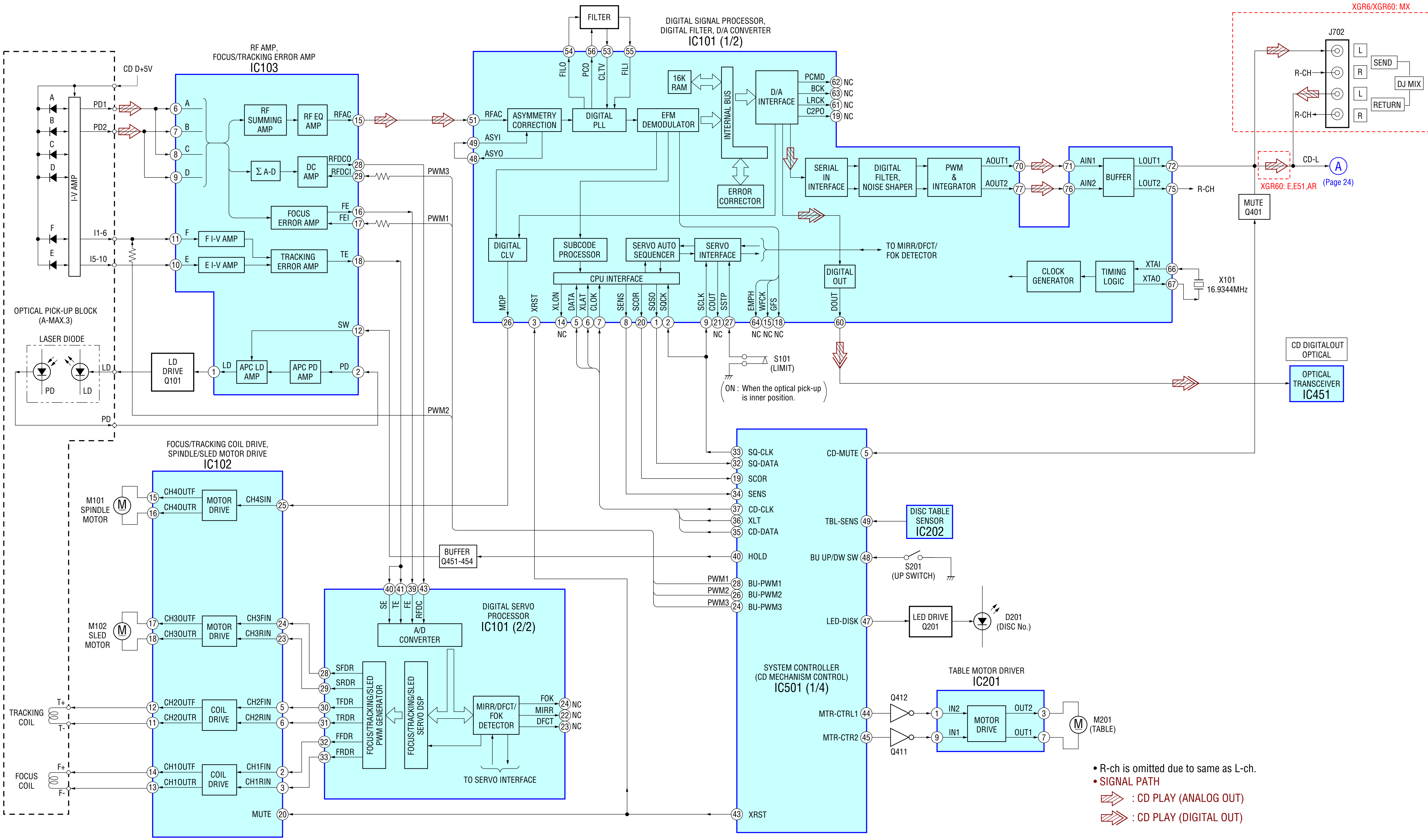
- : B+ Line.
- : B– Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  BD board section
  no mark: CD PLAY
  Other board section
  no mark: TUNER (FM/AM)
  ( ): TAPE PLAY
  < >: TAPE REC
  [ ]: CD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  : TUNER (FM/AM)
  : TAPE PALY (DECK A)
  : TAPE PALY (DECK B)
  : RECORD
  : CD PALY (ANALOG OUT)
  : CD PALY (DIGITAL OUT)
  : MIC INPUT
- Abbreviation
  AR : Argentina model
  MX : Mexican model
  E51 : Chilean and Peruvian model

Note on Printed Wiring Boards:

- : parts extracted from the component side.
- : Pattern from the side which enables seeing.
  (The other layers´ Patterns are not indicated.)
- Indication of transistor.

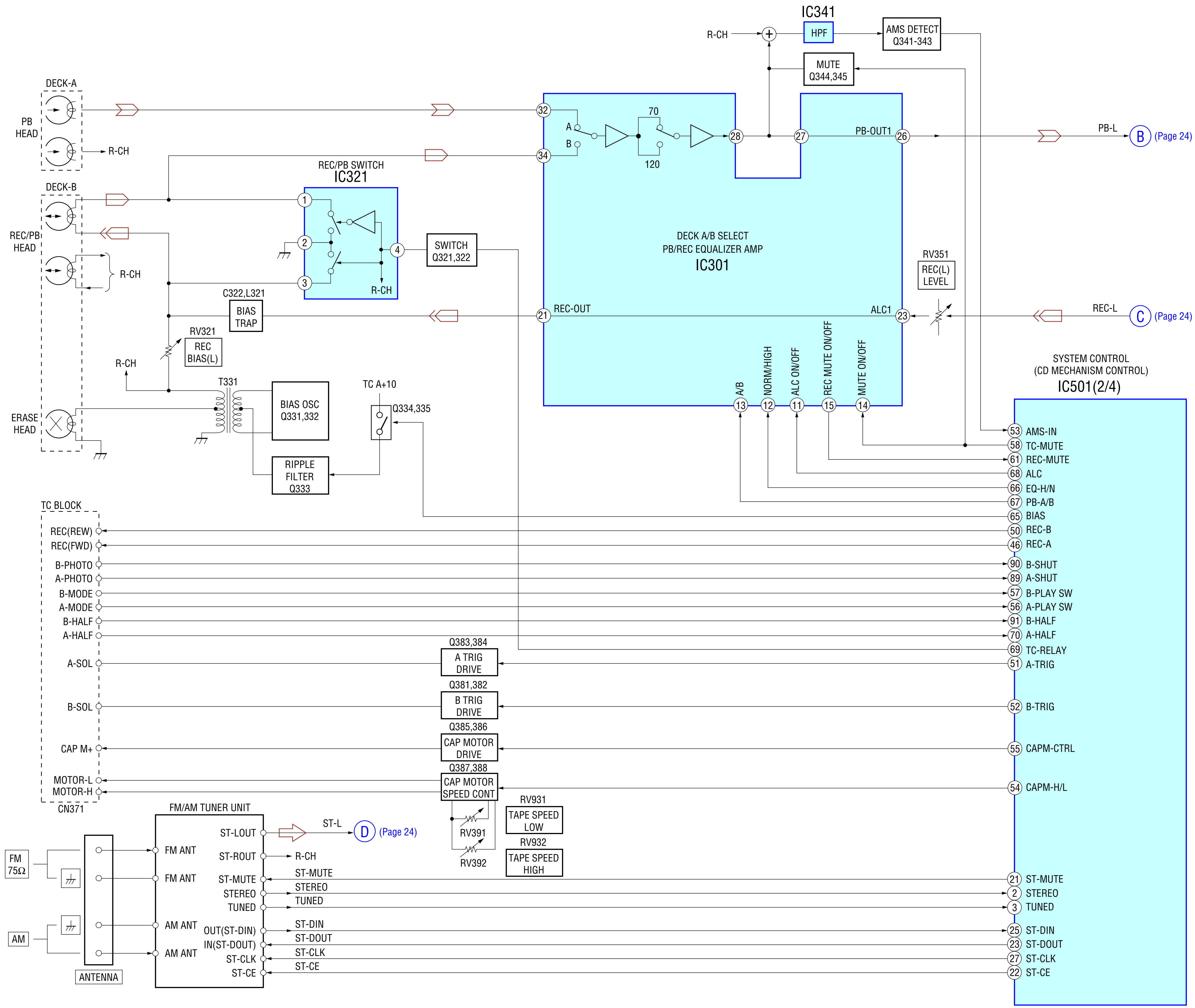


6-2. BLOCK DIAGRAMS
– CD SERVO SECTION –



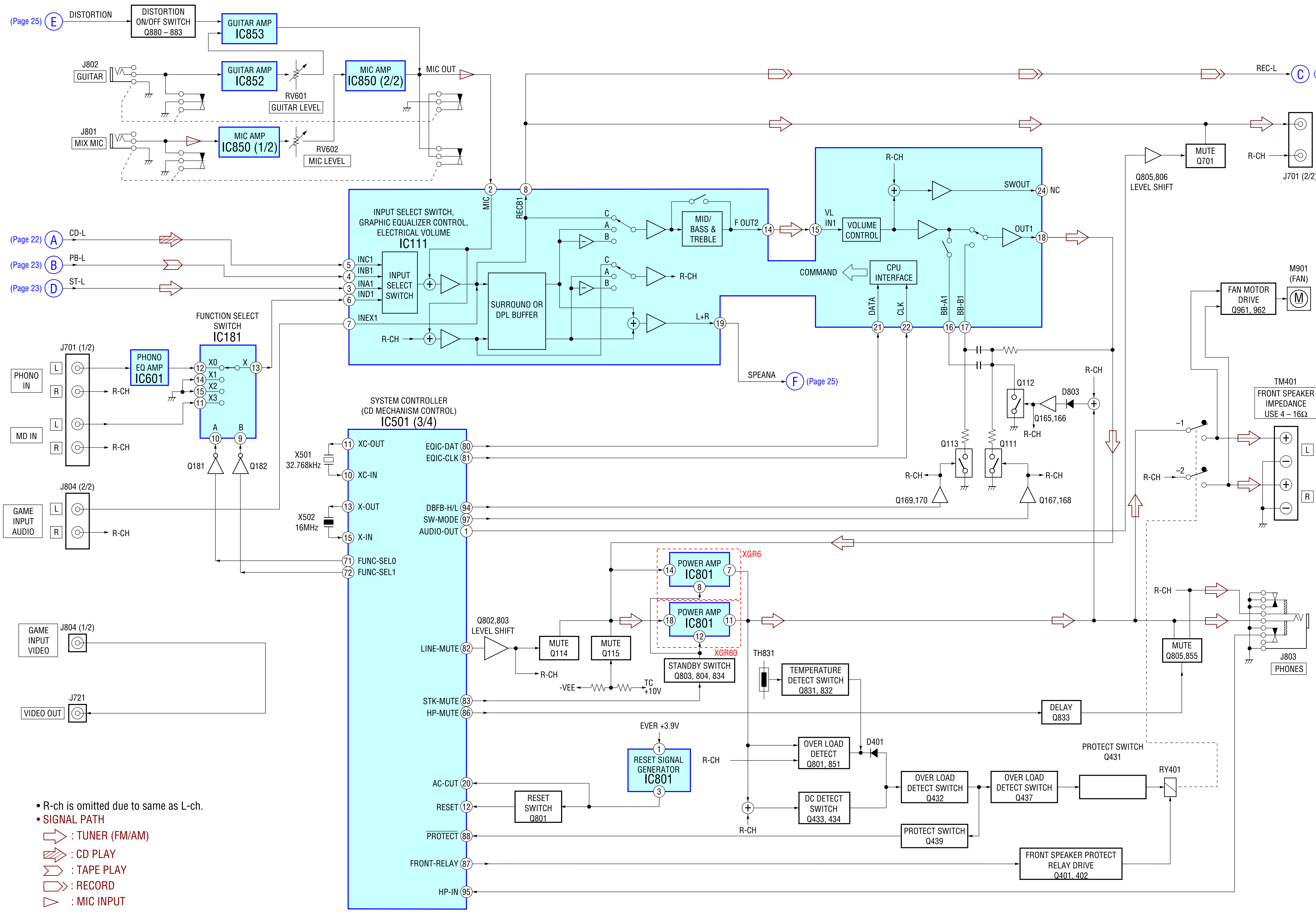
• R-ch is omitted due to same as L-ch.
• SIGNAL PATH
: CD PLAY (ANALOG OUT)
: CD PLAY (DIGITAL OUT)

–TUNER/TAPE DECK SECTION –

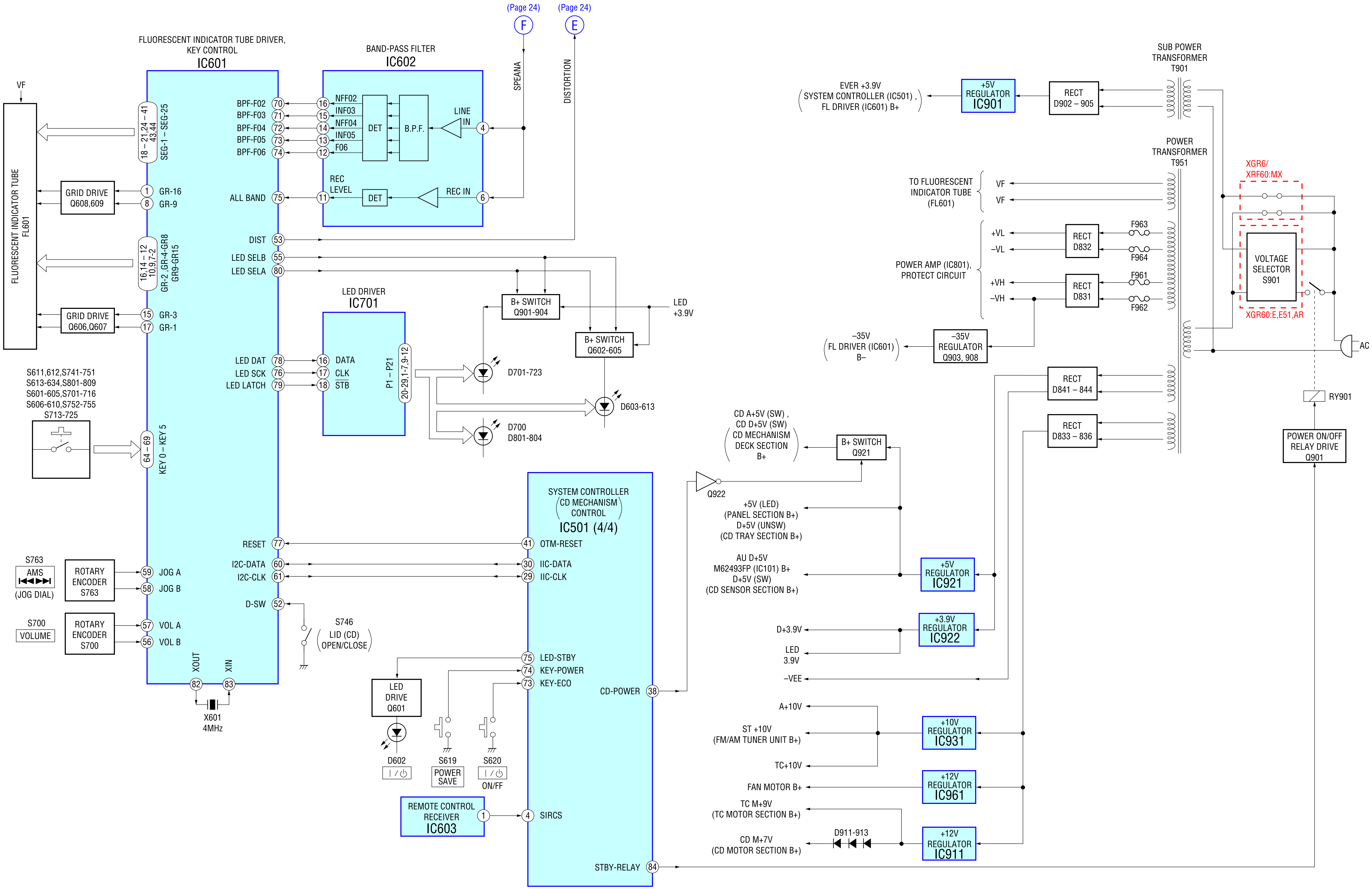


- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
  - : TUNER (FM/AM)
  - : PLAYBACK (DECK A)
  - : PLAYBACK (DECK B)
  - : RECORD

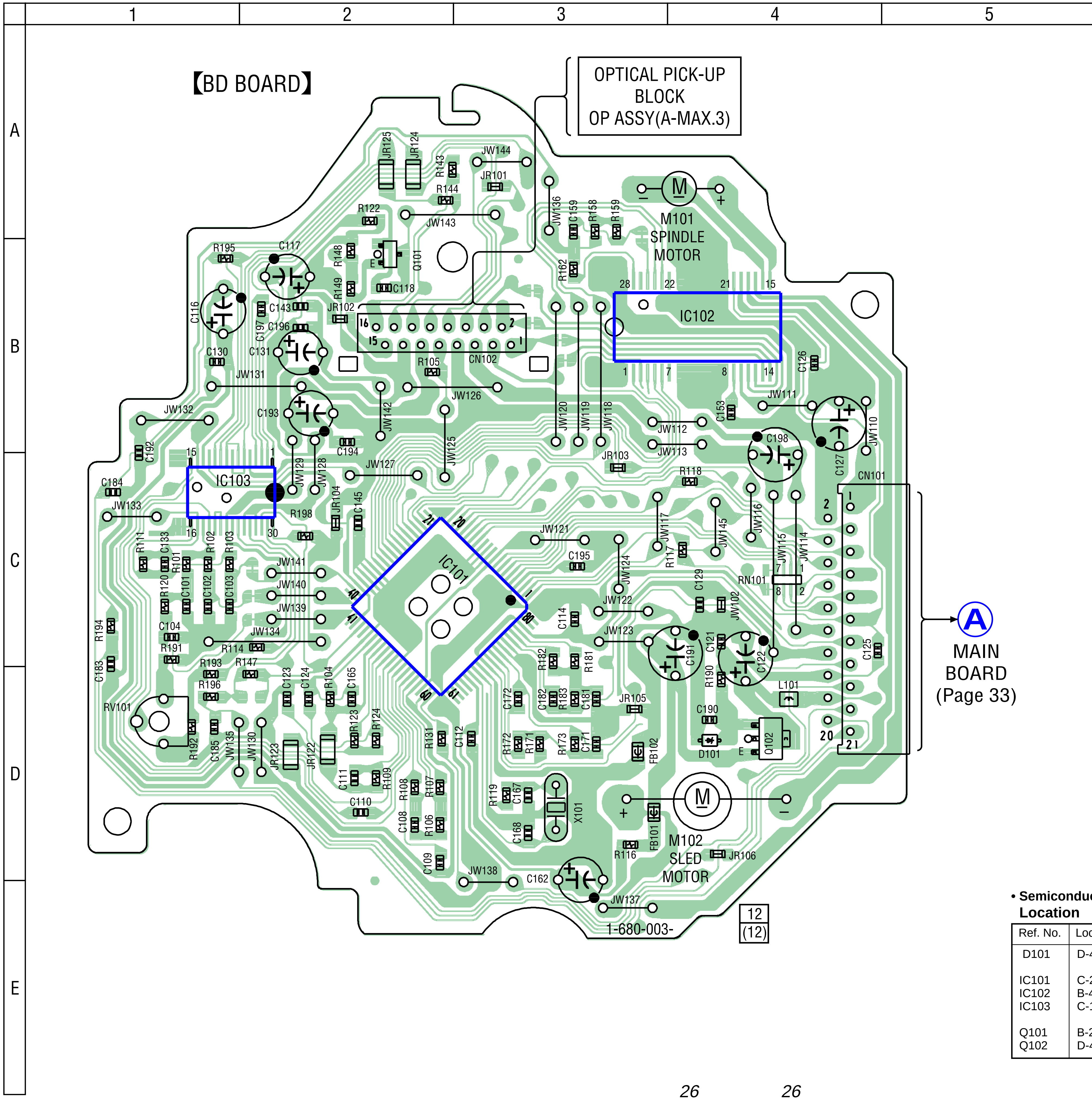
– MAIN SECTION –



– DISPLAY/KEY CONTROL/POWER SUPPLY SECTION –



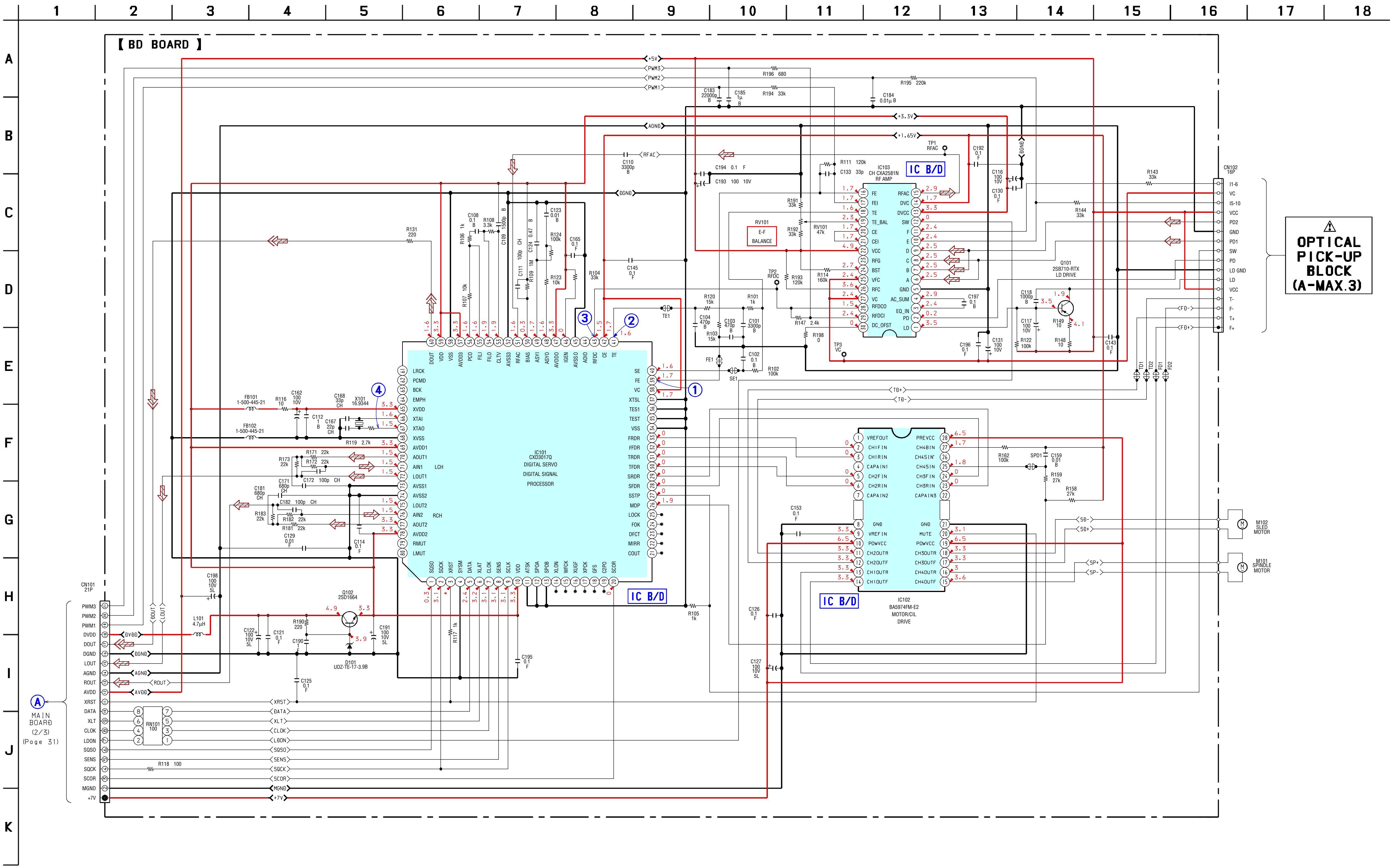
6-3. PRINTED WIRING BOARD – BD SECTION – • See page 21 for Circuit Boards Location.



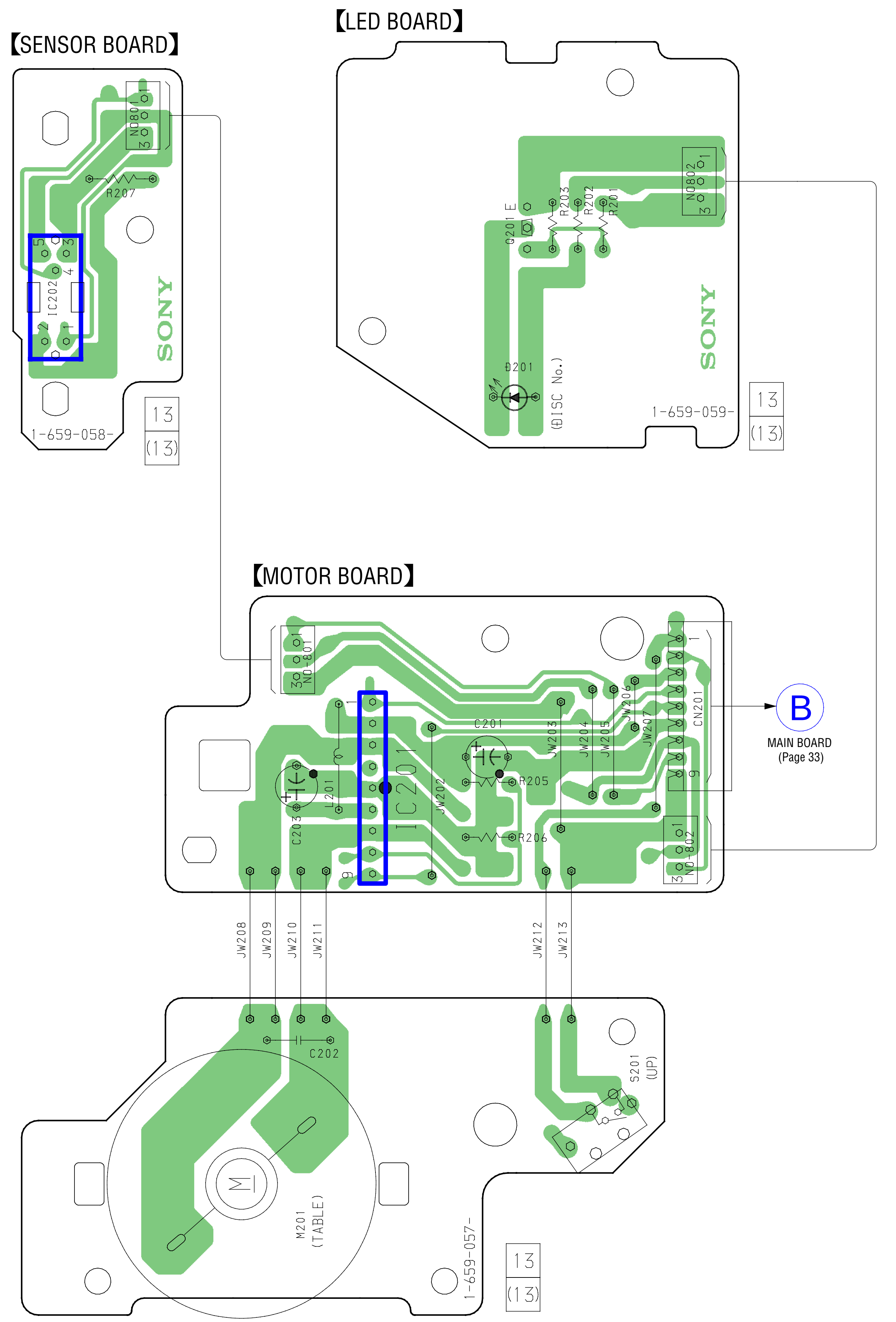
• **Semiconductor Location**

Ref. No.	Location
D101	D-4
IC101	C-2
IC102	B-4
IC103	C-1
Q101	B-2
Q102	D-4

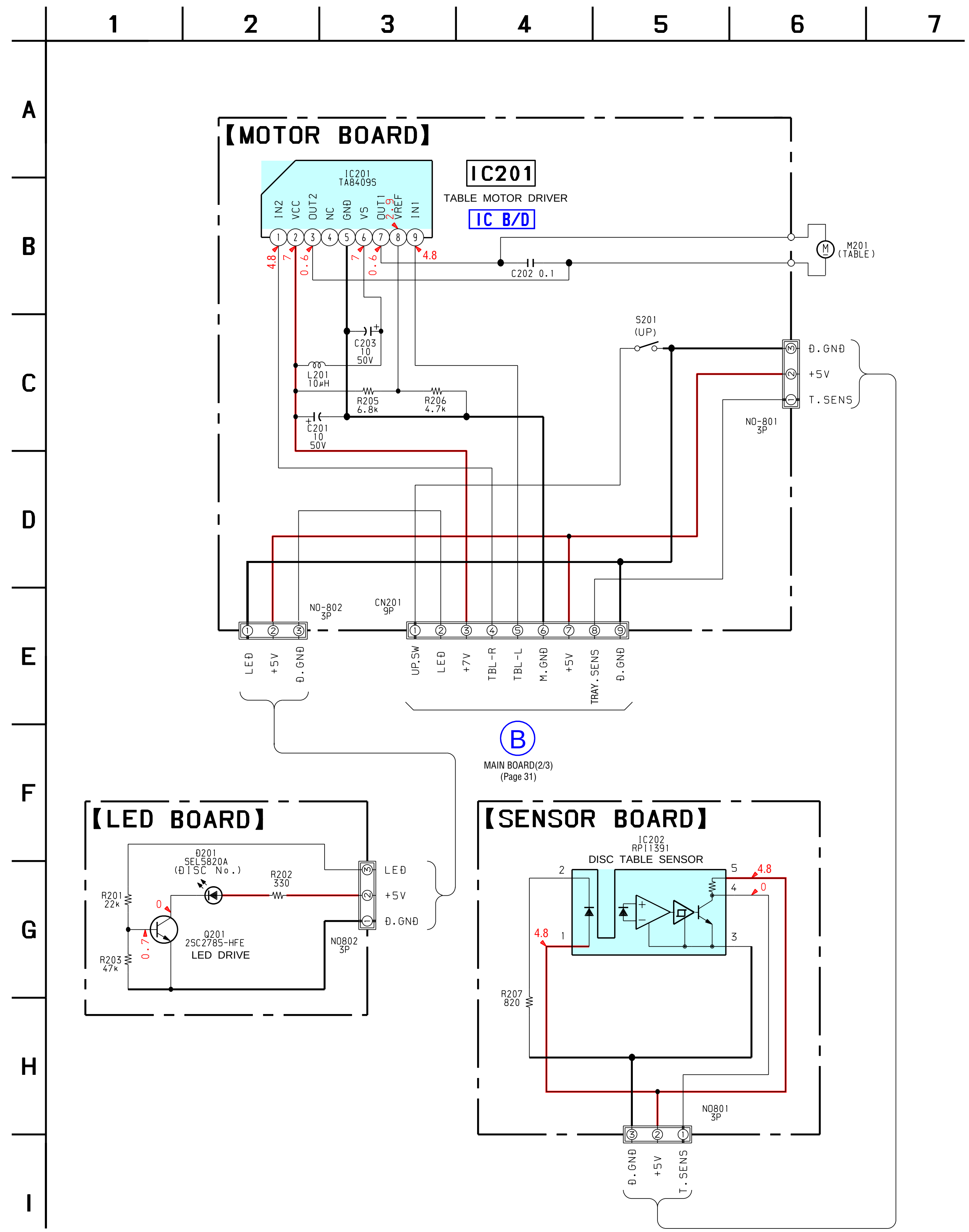
6-4. SCHEMATIC DIAGRAM – BD SECTION – • See page 44 for Waveforms. • See page 44 for IC Pin Function. • See page 50,51 for IC Block Diagrams.



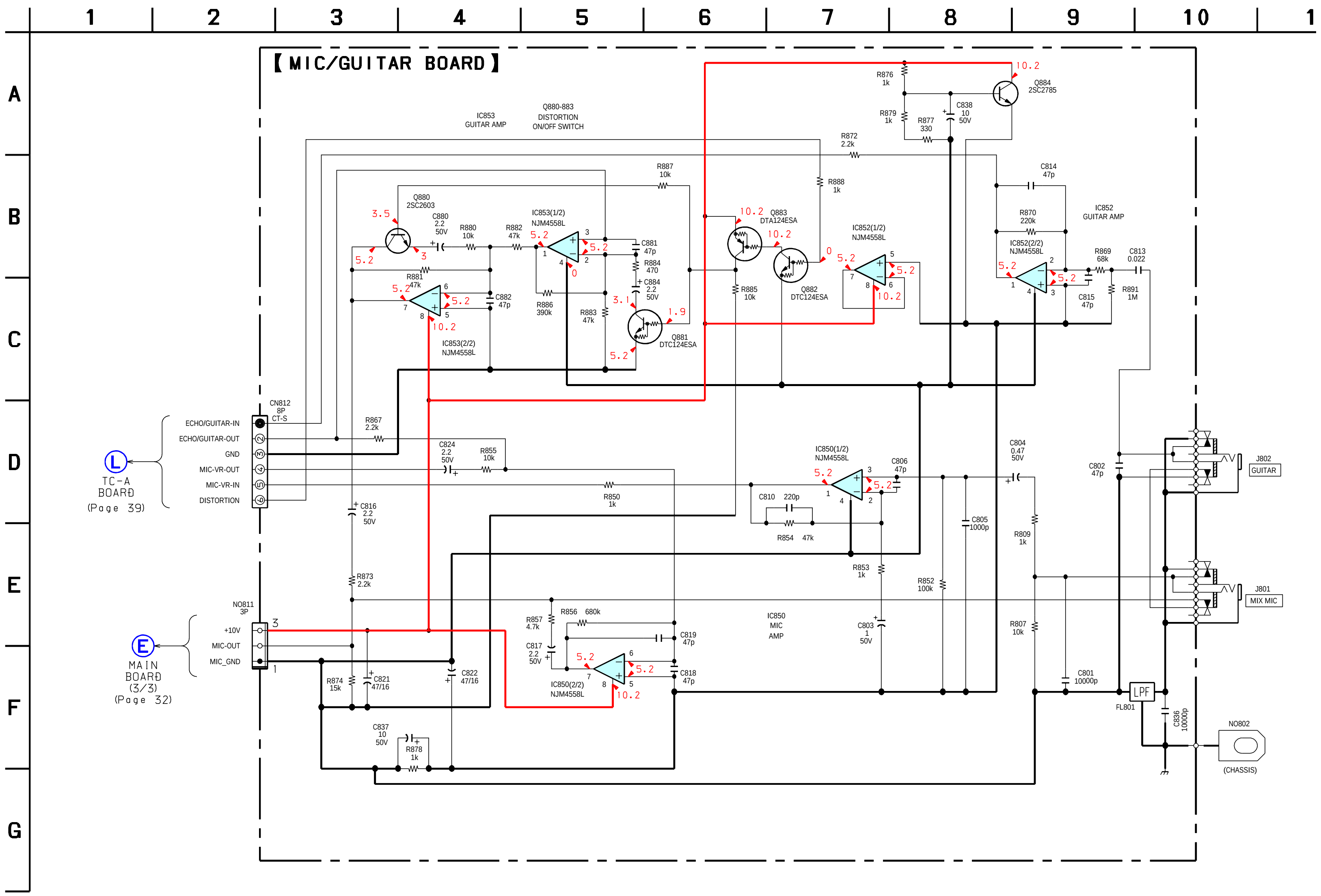
6-5.PRINTED WIRING BOARD – MOTOR LED SECTION – • See page 21 for Circuit Boards Location.



6-6.SCHEMATIC DIAGRAM – MOTOR LED SECTION – • See page 56 for IC Block Diagrams.

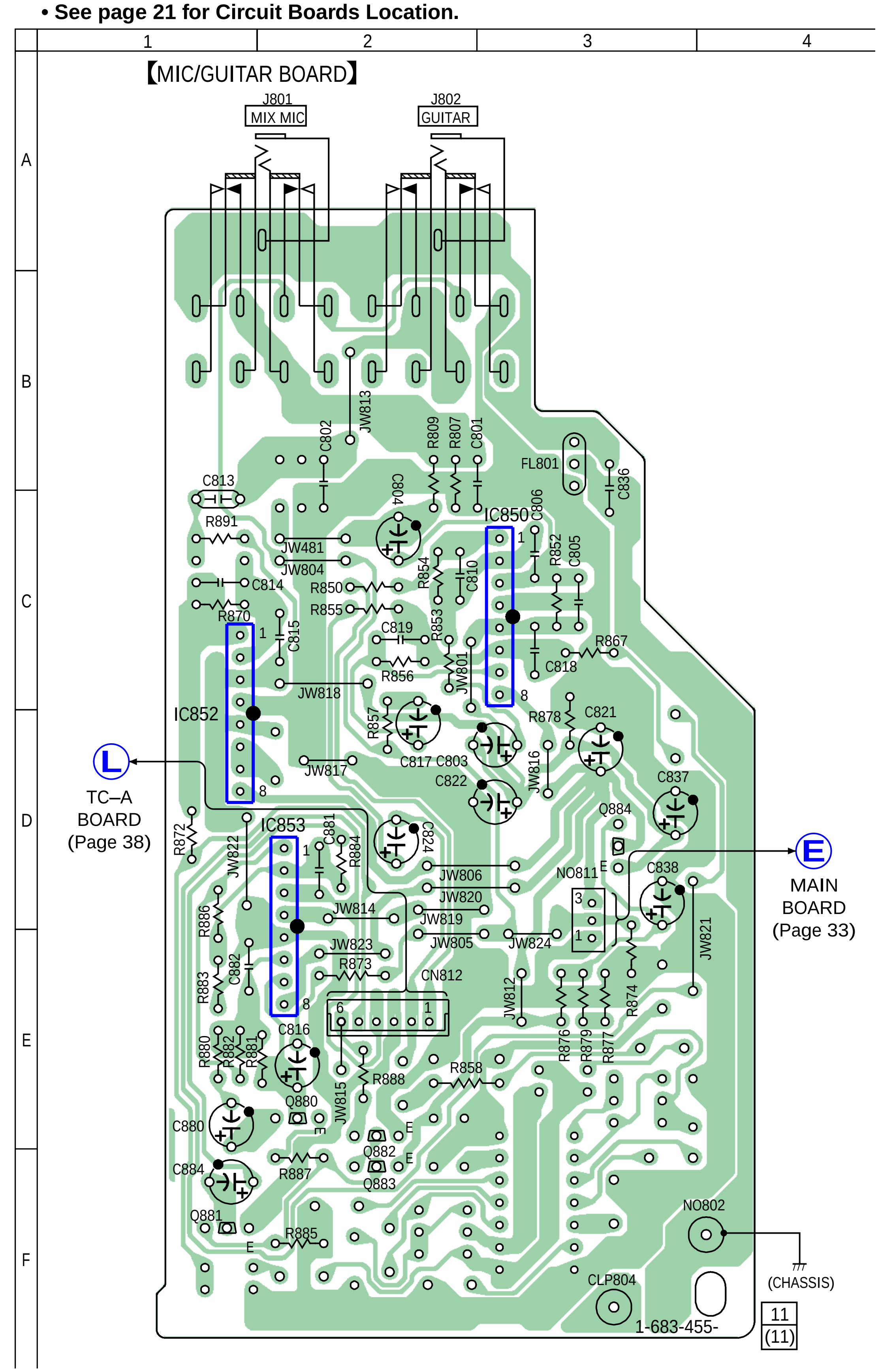


6-7. SCHEMATIC DIAGRAM – MIC/GUITAR SECTION –



6-8. PRINTED WIRING BOARD – MIC/GUITAR SECTION –

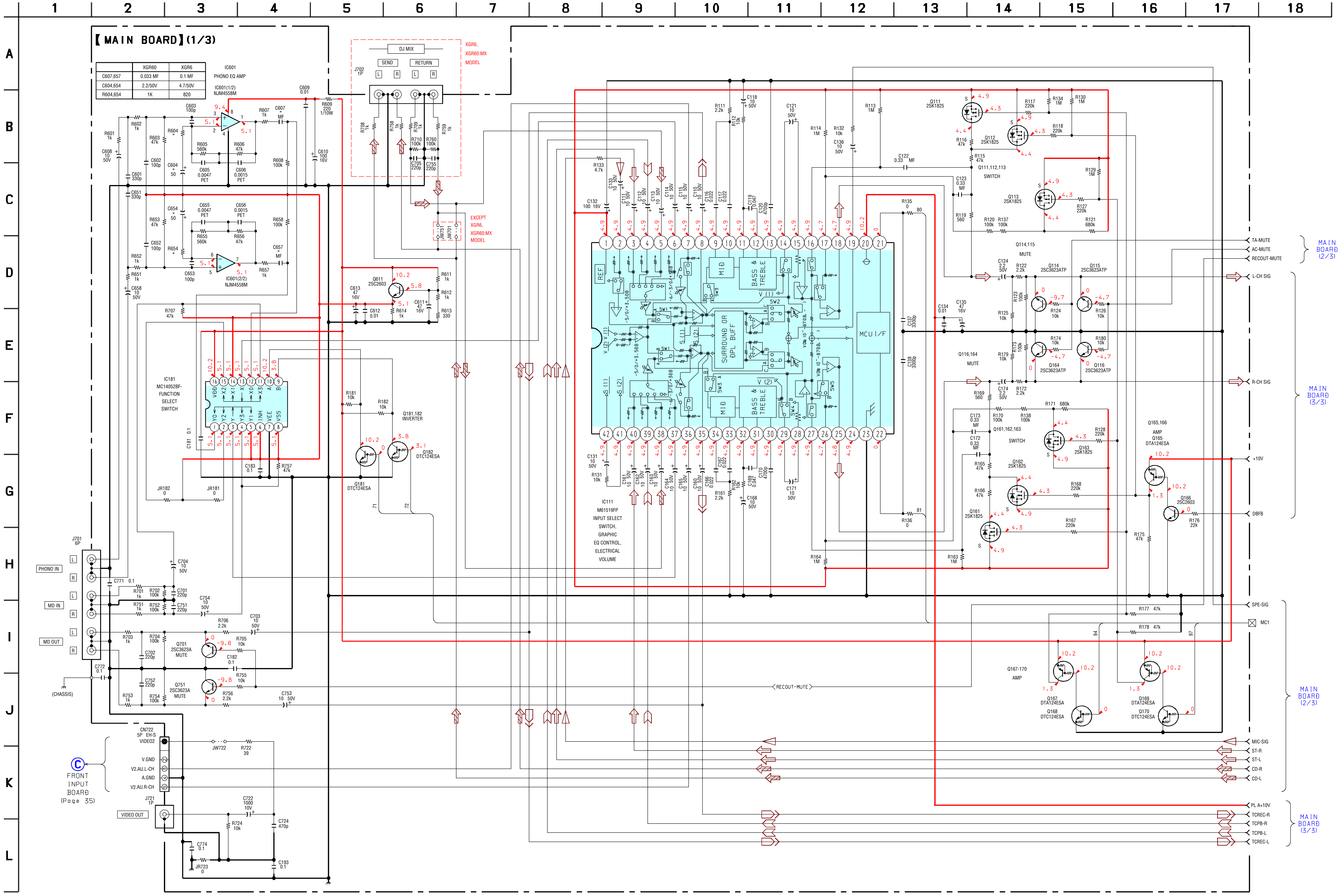
- See page 21 for Circuit Boards Location.



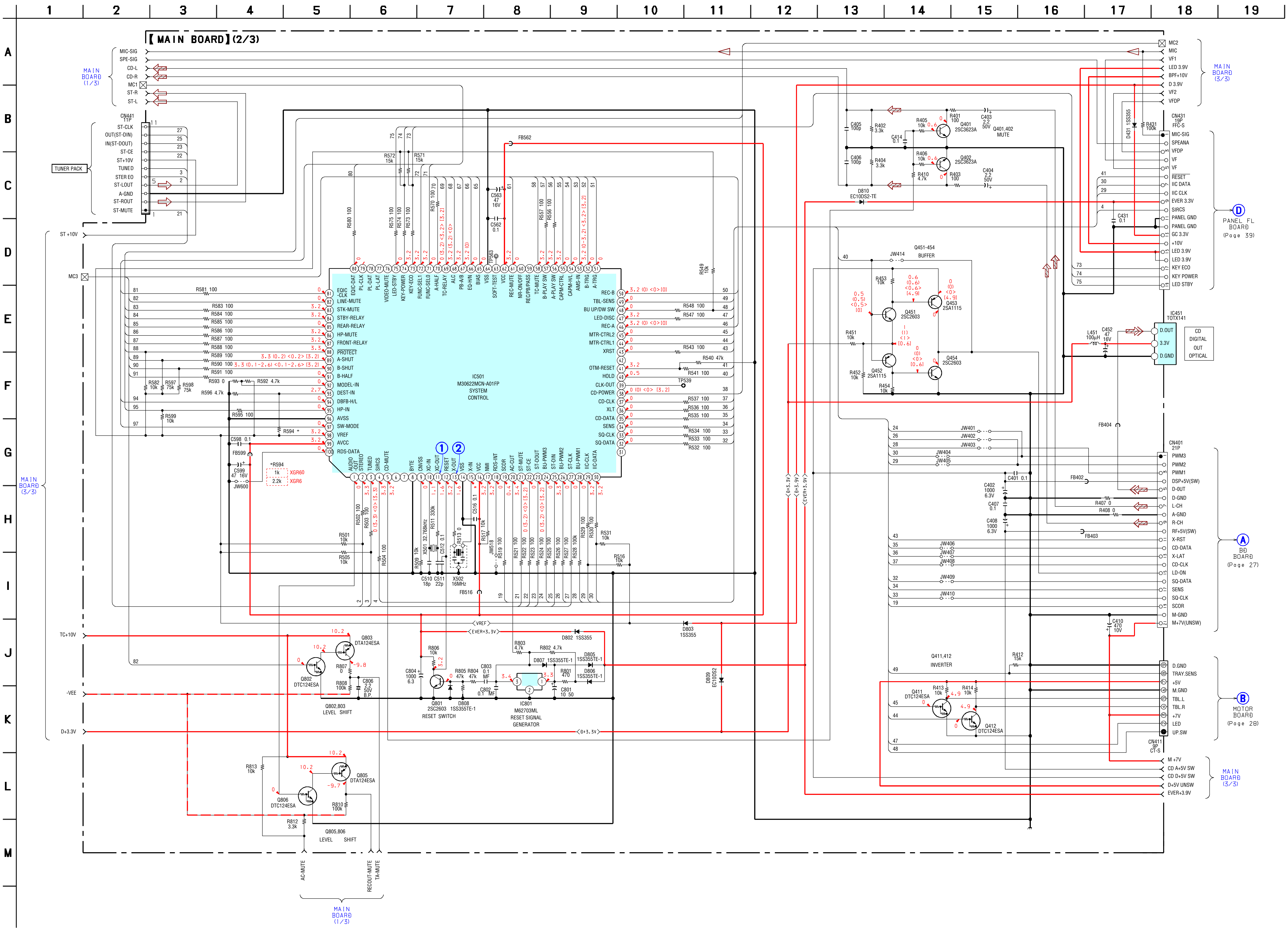
- **Semiconductor Location**

Ref. No.	Location
IC850	B-3
IC852	C-4
IC853	C-5
Q880	C-6
Q881	D-6
Q882	C-6
Q883	C-6
Q884	B-4

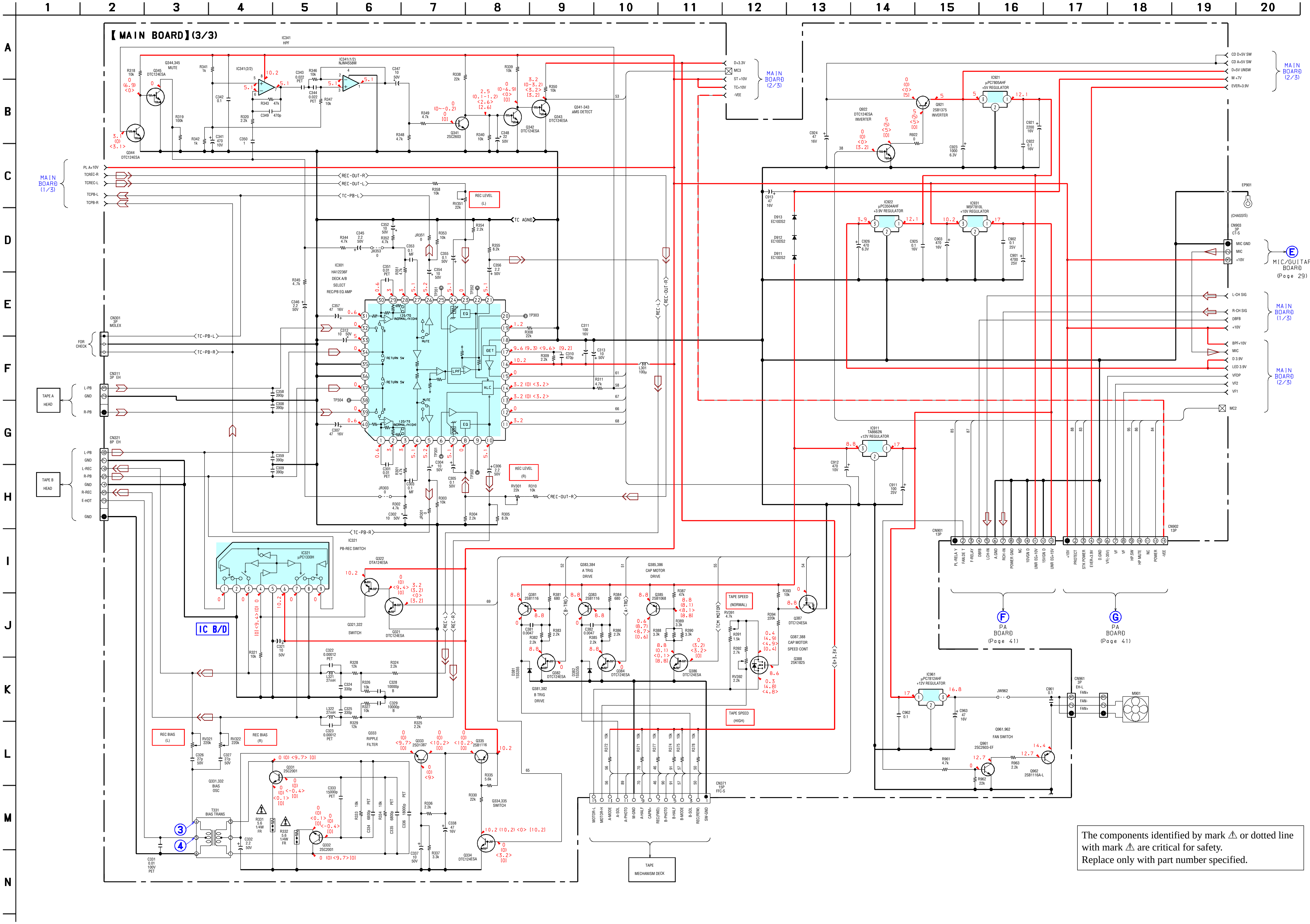
6-9.SCHEMATIC DIAGRAM – MAIN (1/3) SECTION –



6-10.SCHEMATIC DIAGRAM – MAIN(2/3) SECTION – • See page 44 for Waveforms. • See page 46 for IC Pin Function.

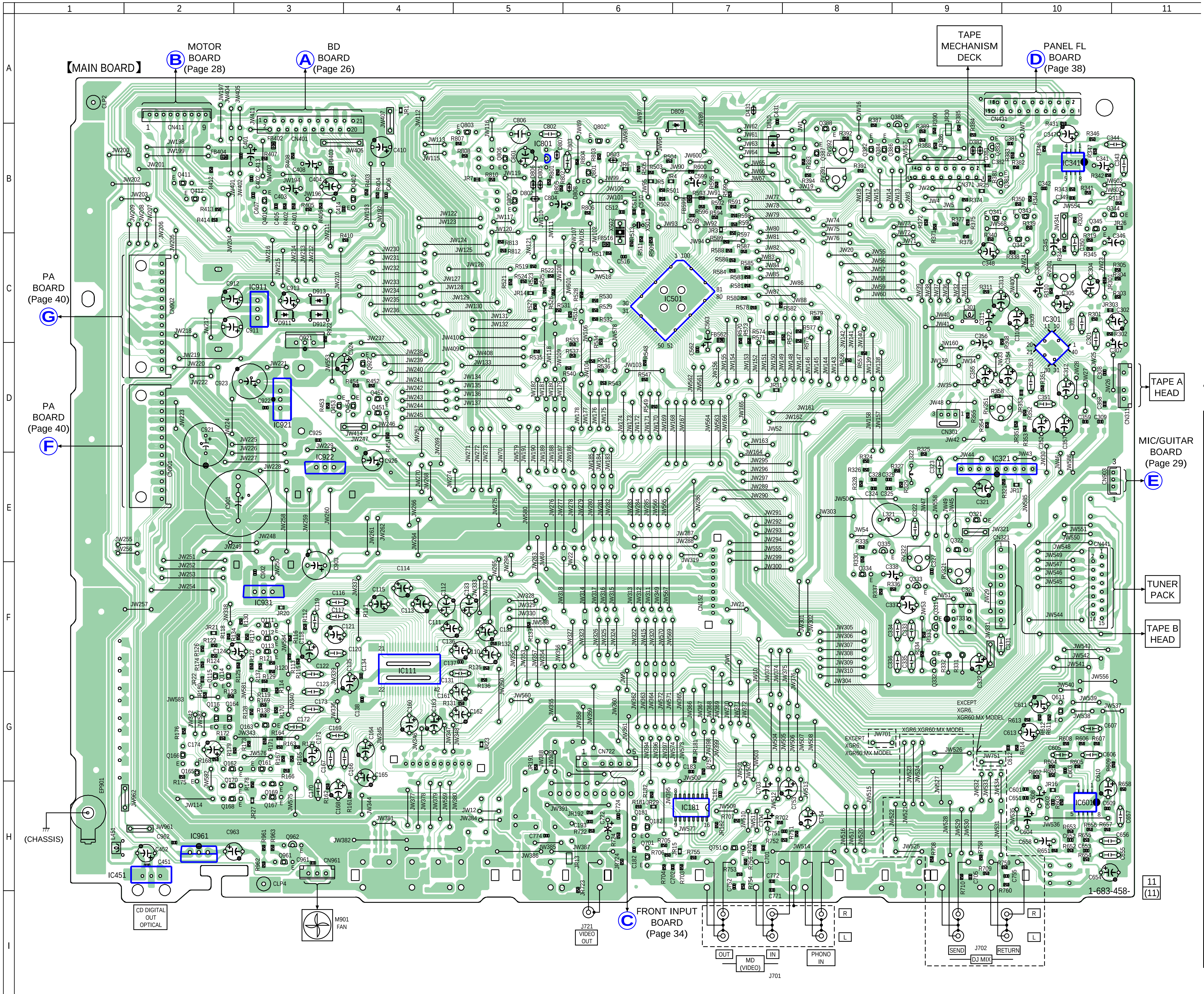


6-11. SCHEMATIC DIAGRAM – MAIN (3/3) SECTION – • See page 44 for Waveforms. • See page 51 for IC Block Diagrams.



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

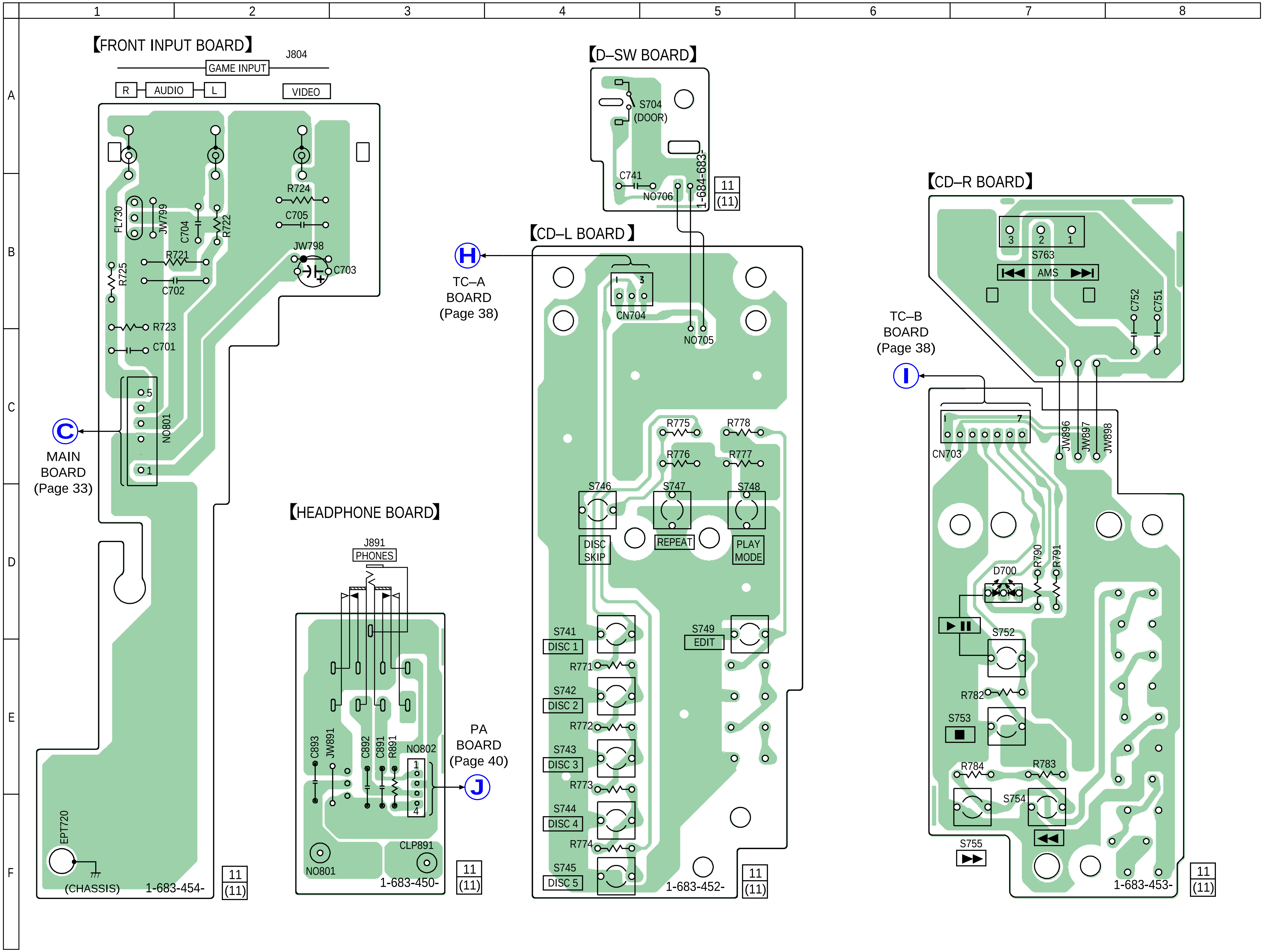
6-12. PRINTED WIRING BOARD – MAIN SECTION – • See page 21 for Circuit Boards Location.



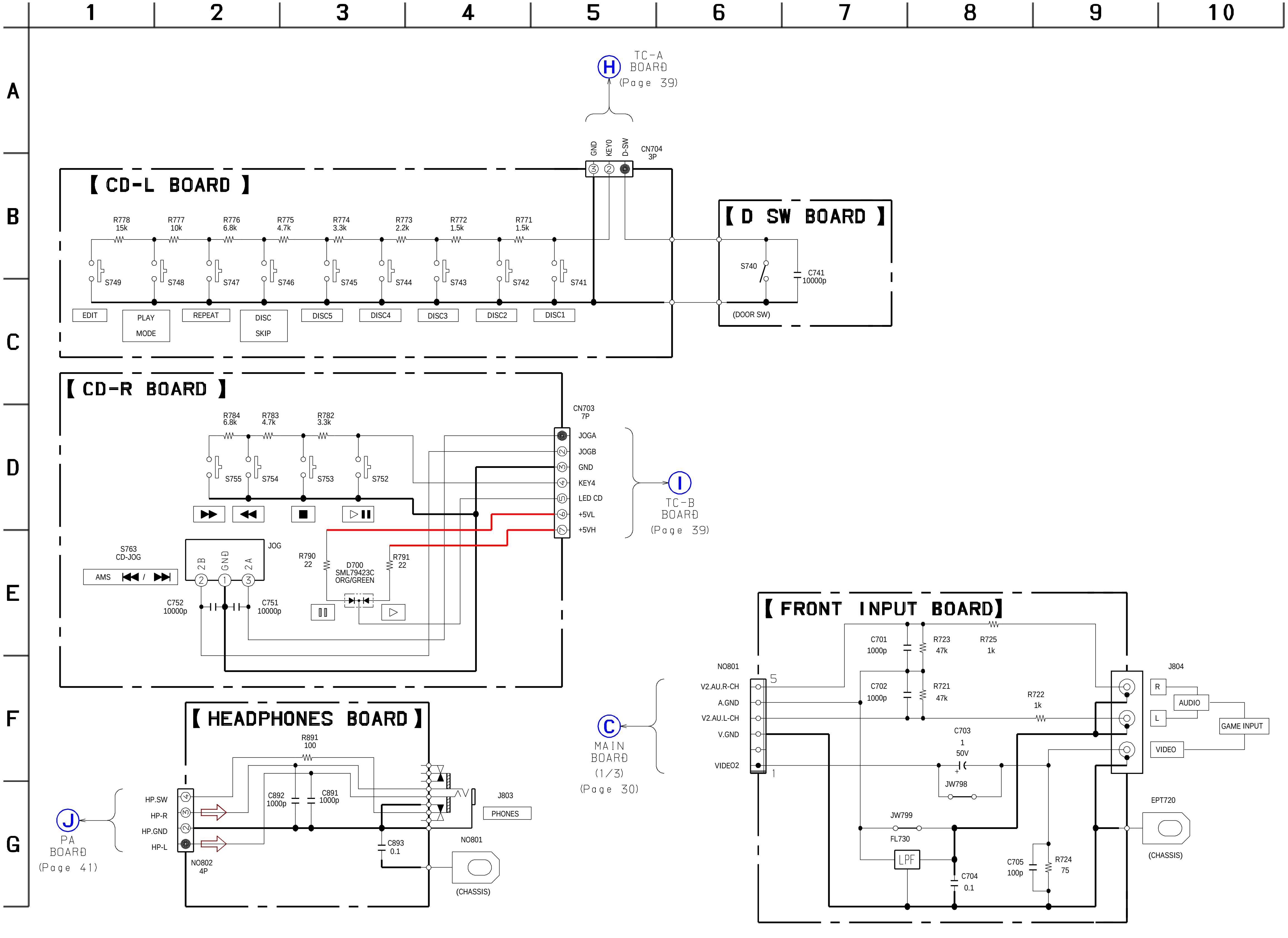
• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D381	B-9	Q169	H-3
D382	B-9	Q170	H-2
D431	B-7	Q181	H-6
D802	B-5	Q182	H-6
D803	B-6	Q321	E-9
D805	B-5	Q322	E-9
D806	B-5	Q331	F-9
D807	B-5	Q332	F-9
D808	B-6	Q333	F-9
D809	B-7	Q334	F-8
D810	B-7	Q335	E-8
D911	C-3	Q341	B-9
D912	C-3	Q342	C-10
D913	C-3	Q343	B-10
		Q344	B-11
IC111	F-4	Q345	B-10
IC181	H-7	Q381	B-9
IC301	D-10	Q382	B-8
IC321	E-9	Q383	B-9
IC341	B-10	Q384	B-8
IC451	H-2	Q385	B-9
IC501	C-7	Q386	B-9
IC601	H-10	Q387	B-8
IC801	B-5	Q388	B-8
IC911	C-3	Q401	B-3
IC921	D-3	Q402	B-4
IC922	E-3	Q411	B-2
IC931	F-3	Q412	B-2
IC961	H-2	Q451	D-4
		Q452	D-4
Q111	F-3	Q453	D-3
Q112	F-3	Q454	D-4
Q113	F-3	Q611	G-10
Q114	G-2	Q701	H-6
Q115	G-2	Q751	H-7
Q116	G-2	Q801	B-6
Q161	G-3	Q802	B-6
Q162	G-2	Q803	B-5
Q163	G-3	Q805	B-5
Q164	G-2	Q806	B-5
Q165	G-2	Q921	C-3
Q166	G-2	Q922	D-4
Q167	H-3	Q961	H-3
Q168	H-2	Q962	H-3

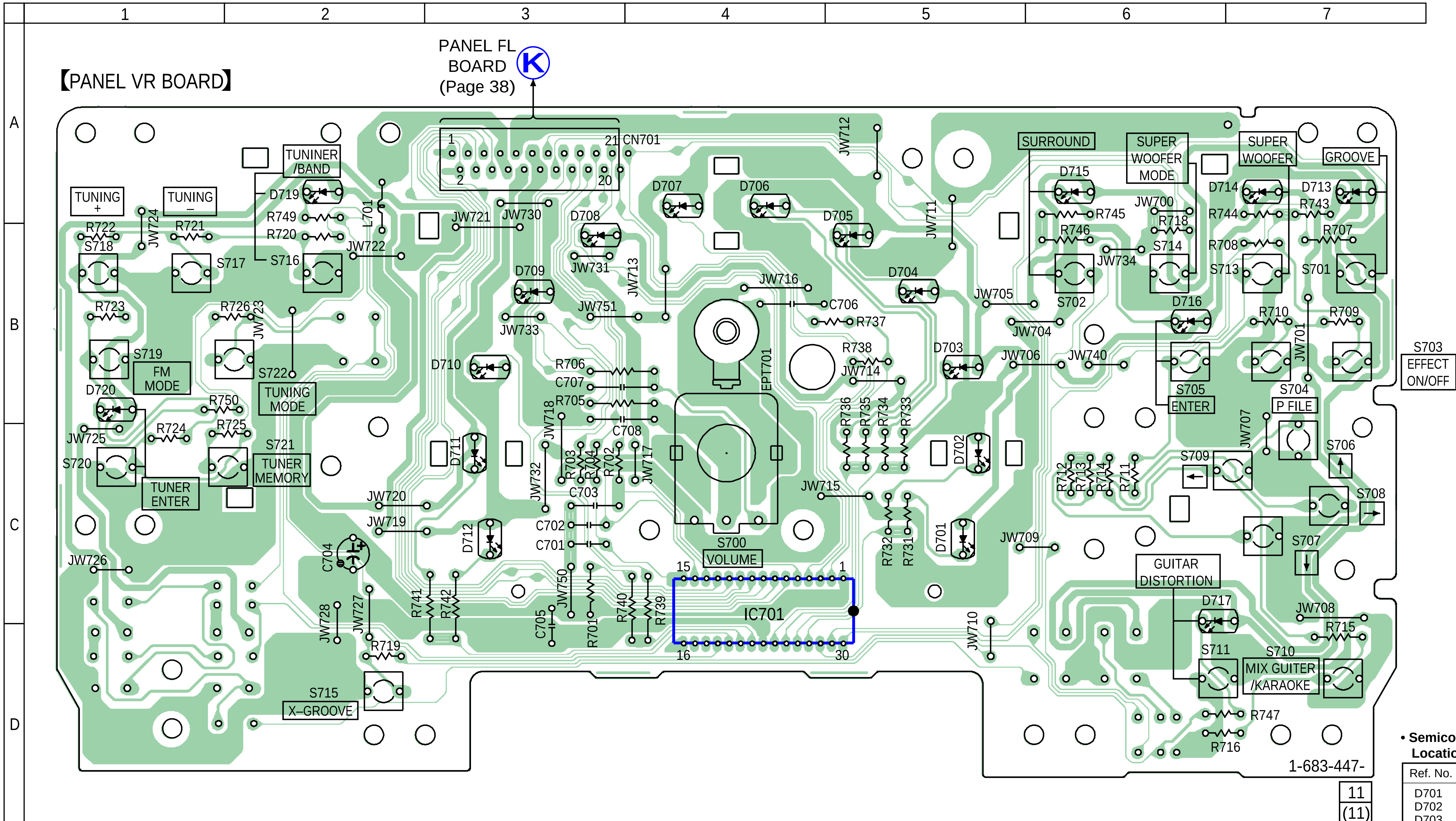
6-13.PRINTED WIRING BOARD – CD-L, CD-R, HEADPHONE, FRONT INPUT, D-SW SECTION – • See page 21 for Circuit Boards Location.



6-14. SCHEMATIC DIAGRAM – CD-L, CD-R, HEADPHONE, FRONT INPUT, D-SW SECTION –



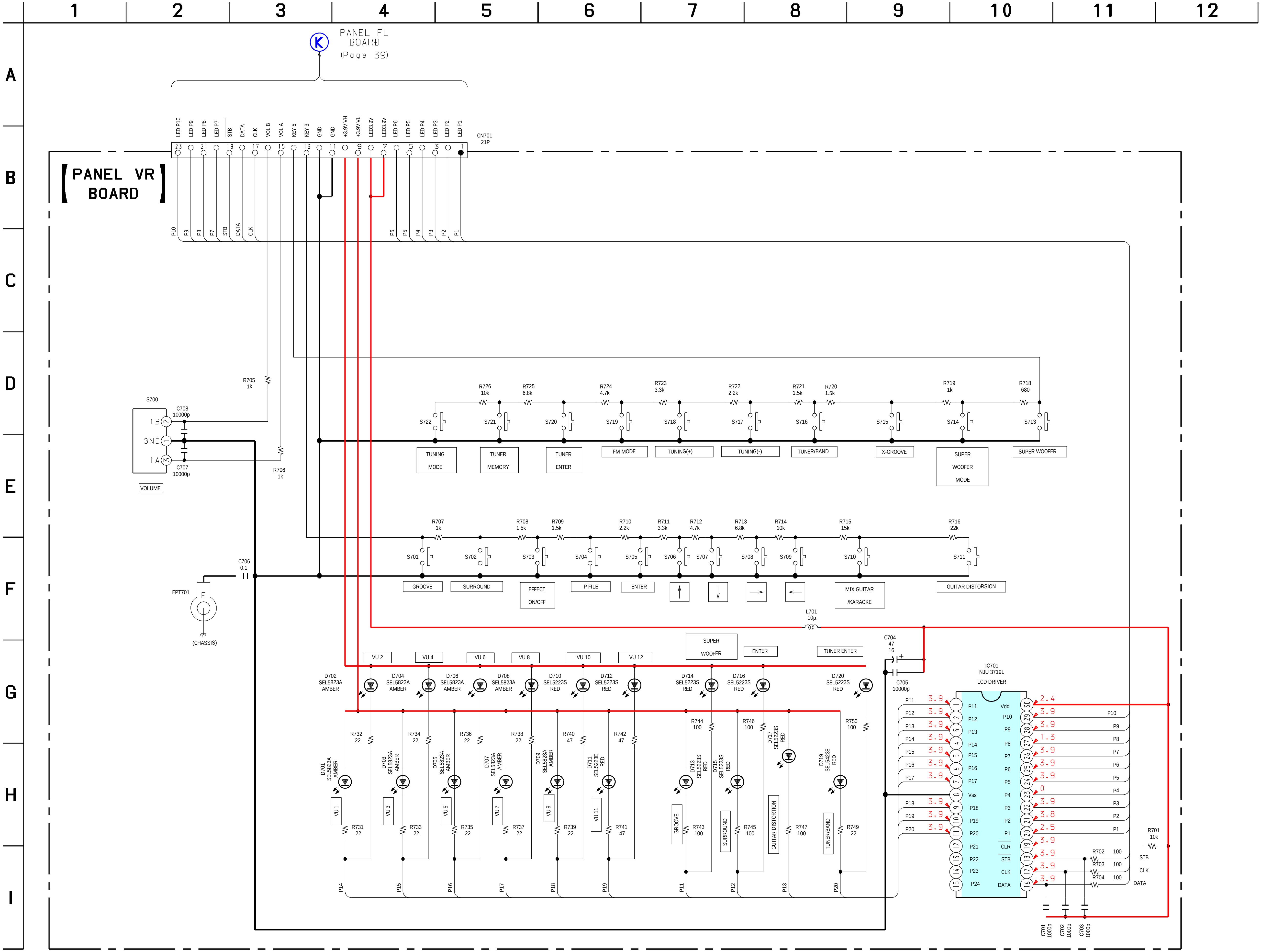
6-15.PRINTED WIRING BOARD – PANEL VR SECTION – • See page 21 for Circuit Boards Location.



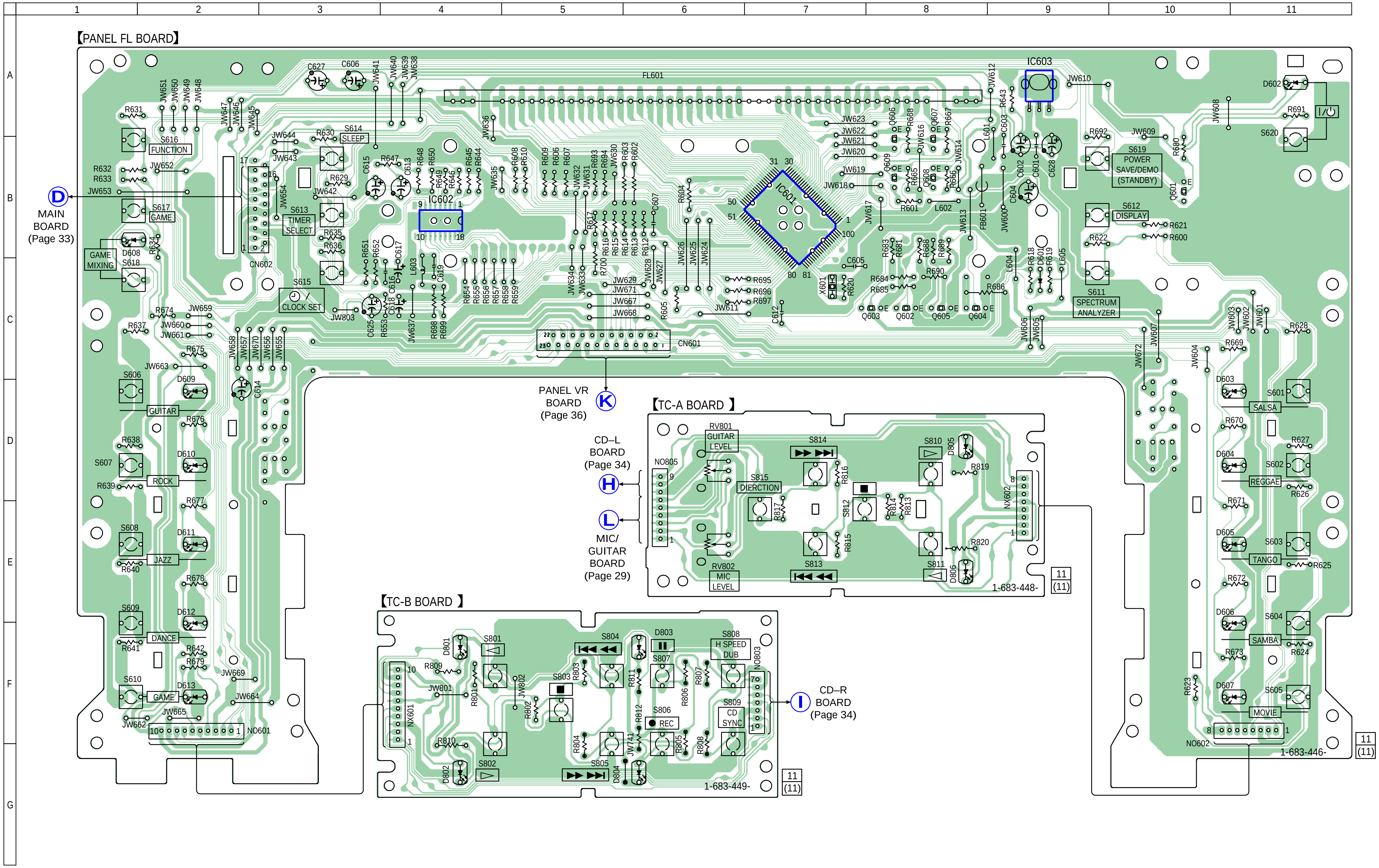
• **Semiconductor Location**

Ref. No.	Location
D701	C-5
D702	C-5
D703	B-5
D704	B-5
D705	B-5
D706	A-4
D707	A-4
D708	B-3
D709	B-3
D710	B-3
D711	C-3
D712	C-3
D713	A-7
D714	A-7
D715	A-6
D716	B-6
D717	C-6
D719	A-2
D720	B-1
IC701	C-4

6-16. SCHEMATIC DIAGRAM – PANEL VR SECTION –



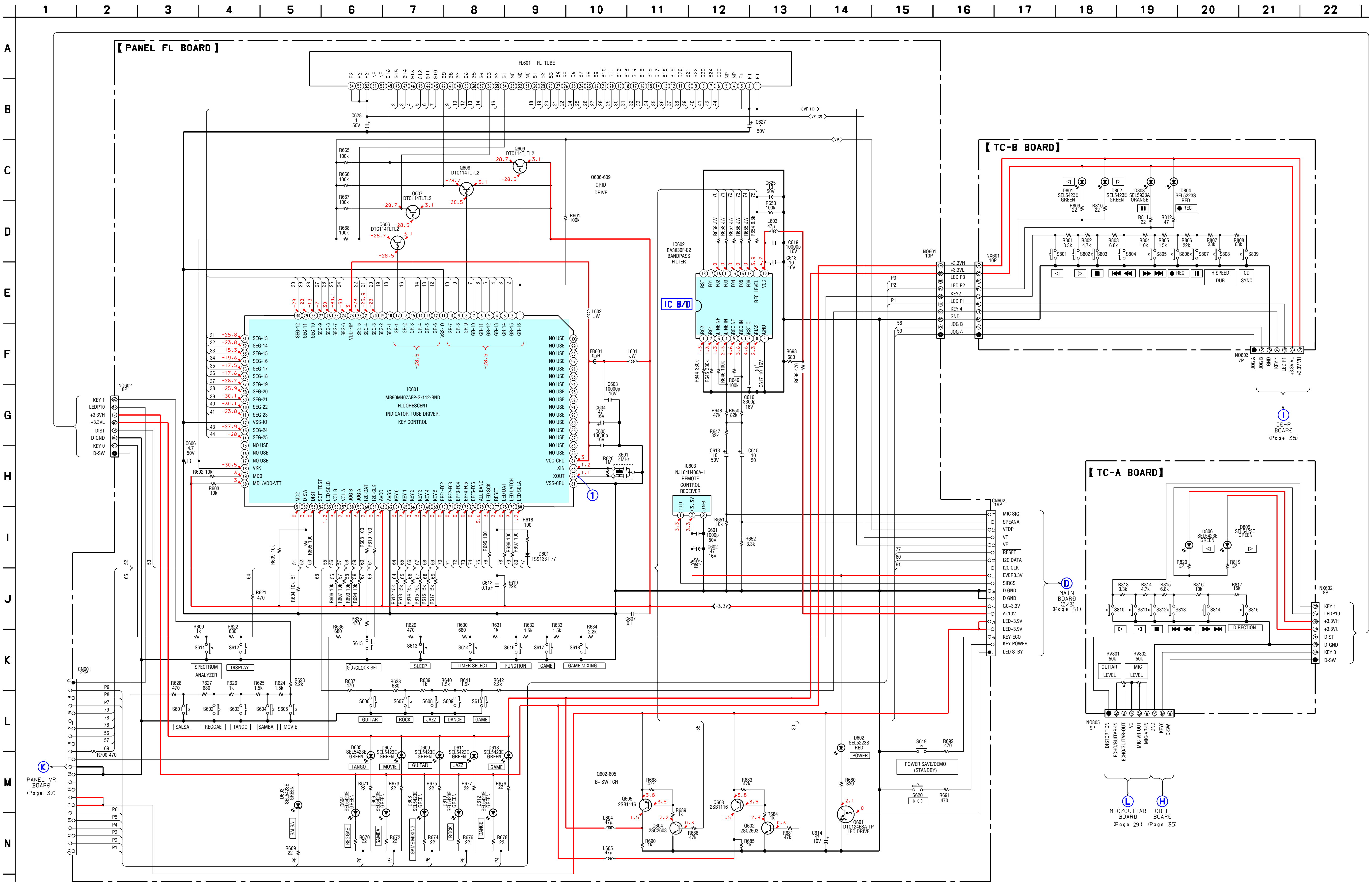
6-17. PRINTED WIRING BOARD – PANEL FL, TC-A, TC-B SECTION – • See page 21 for Circuit Boards Location.



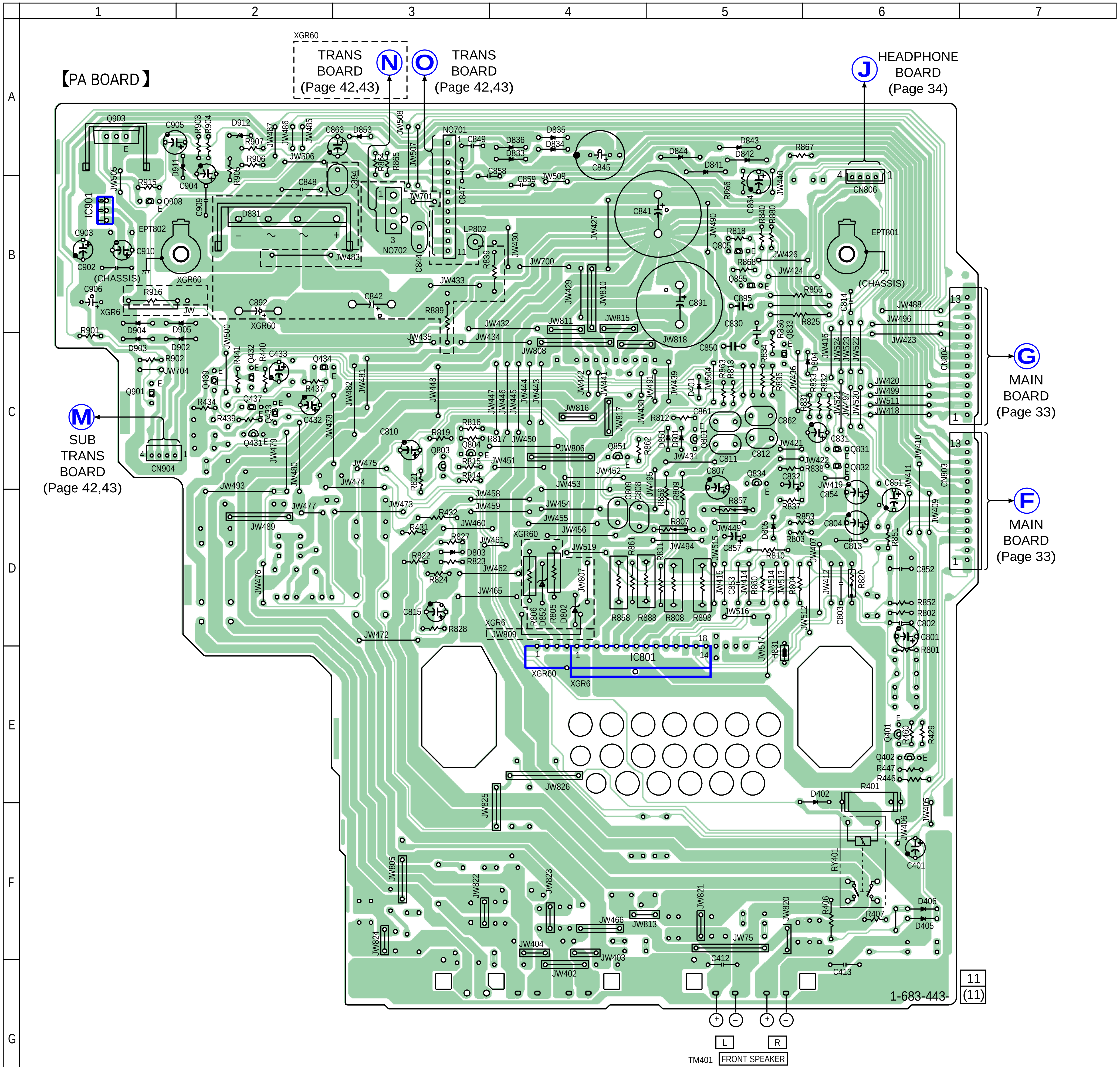
• **Semiconductor Location**

Ref. No.	Location
D601	C-9
D602	A-11
D603	D-11
D604	D-11
D605	E-11
D606	E-11
D607	F-11
D608	B-1
D609	D-2
D610	D-2
D611	E-2
D612	E-2
D613	F-2
D801	F-4
D802	G-4
D803	F-6
D804	G-6
D805	D-8
D806	E-8
IC601	B-7
IC602	B-4
IC603	A-9
Q601	B-10
Q602	C-8
Q603	C-8
Q604	C-8
Q605	C-8
Q606	A-8
Q607	A-8
Q608	B-8
Q609	B-8

6-18.SCHEMATIC DIAGRAM – PANEL FL, TC-A, TC-B SECTION – • See page 44 for Waveforms. • See page 48 for IC Pin Function. • See page 52 for IC Block Diagrams.



6-19.PRINTED WIRING BOARD – PA SECTION – • See page 21 for Circuit Boards Location.

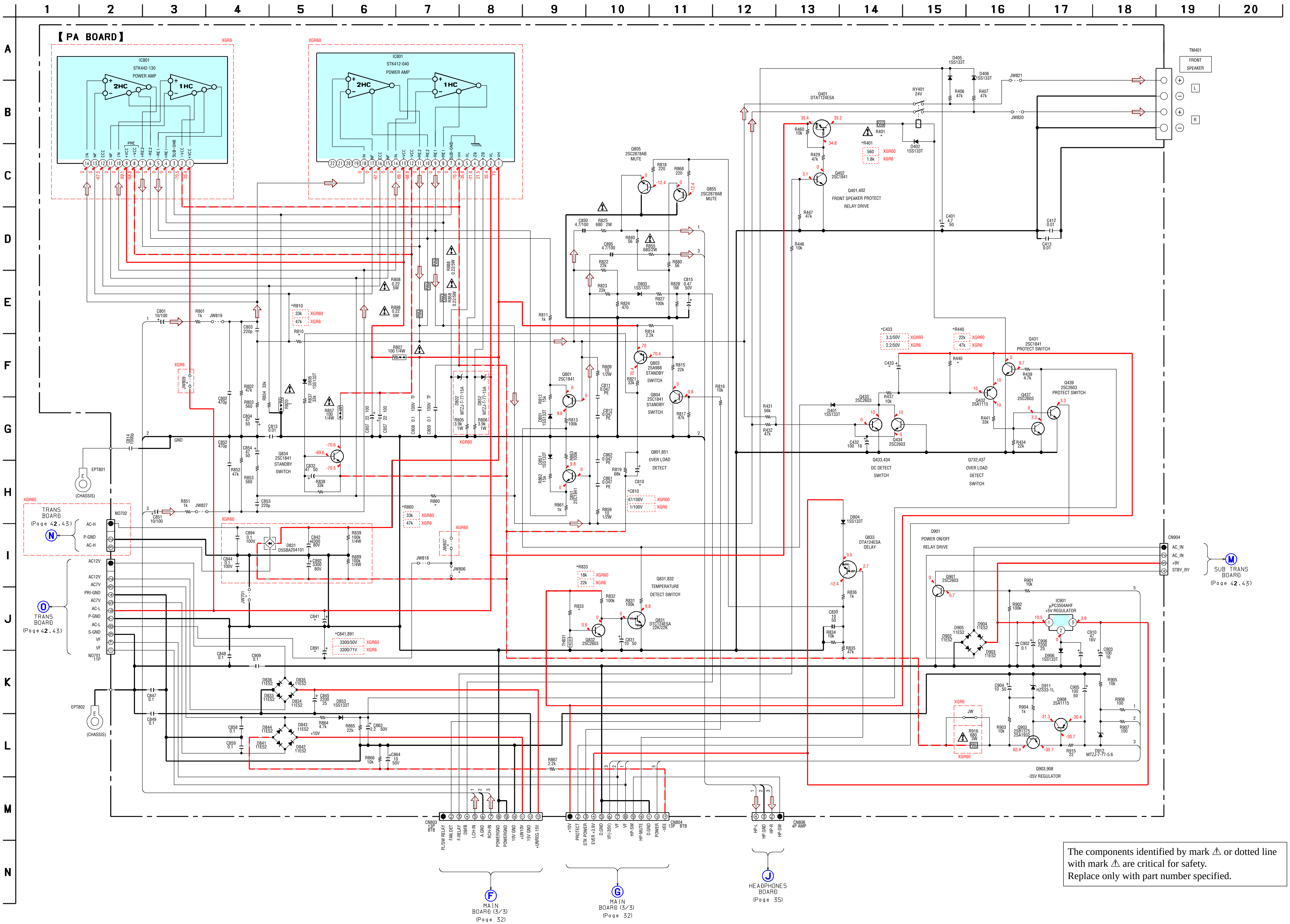


• Semiconductor Location

Ref. No.	Location
D401	C-5
D402	E-6
D405	F-6
D406	F-6
D801	C-5
D802	D-4
D803	D-3
D804	C-6
D805	D-5
D831	B-2
D833	A-4
D834	A-4
D835	A-4
D836	A-4
D841	A-5
D842	A-5
D843	A-5
D844	A-5
D851	C-5
D852	D-4
D853	A-3
D902	C-2
D903	C-1
D904	B-1
D905	B-2
D911	A-2
D912	A-2
IC801	E-4
IC901	B-1
Q401	E-6
Q402	E-6
Q431	C-2
Q432	C-2
Q433	C-2
Q434	C-2
Q437	C-2
Q439	C-2
Q801	C-5
Q803	C-3
Q804	C-3
Q805	B-5
Q831	C-6
Q832	C-6
Q833	C-5
Q834	C-5
Q851	C-4
Q855	B-5
Q901	C-1
Q903	A-1
Q908	B-1

40

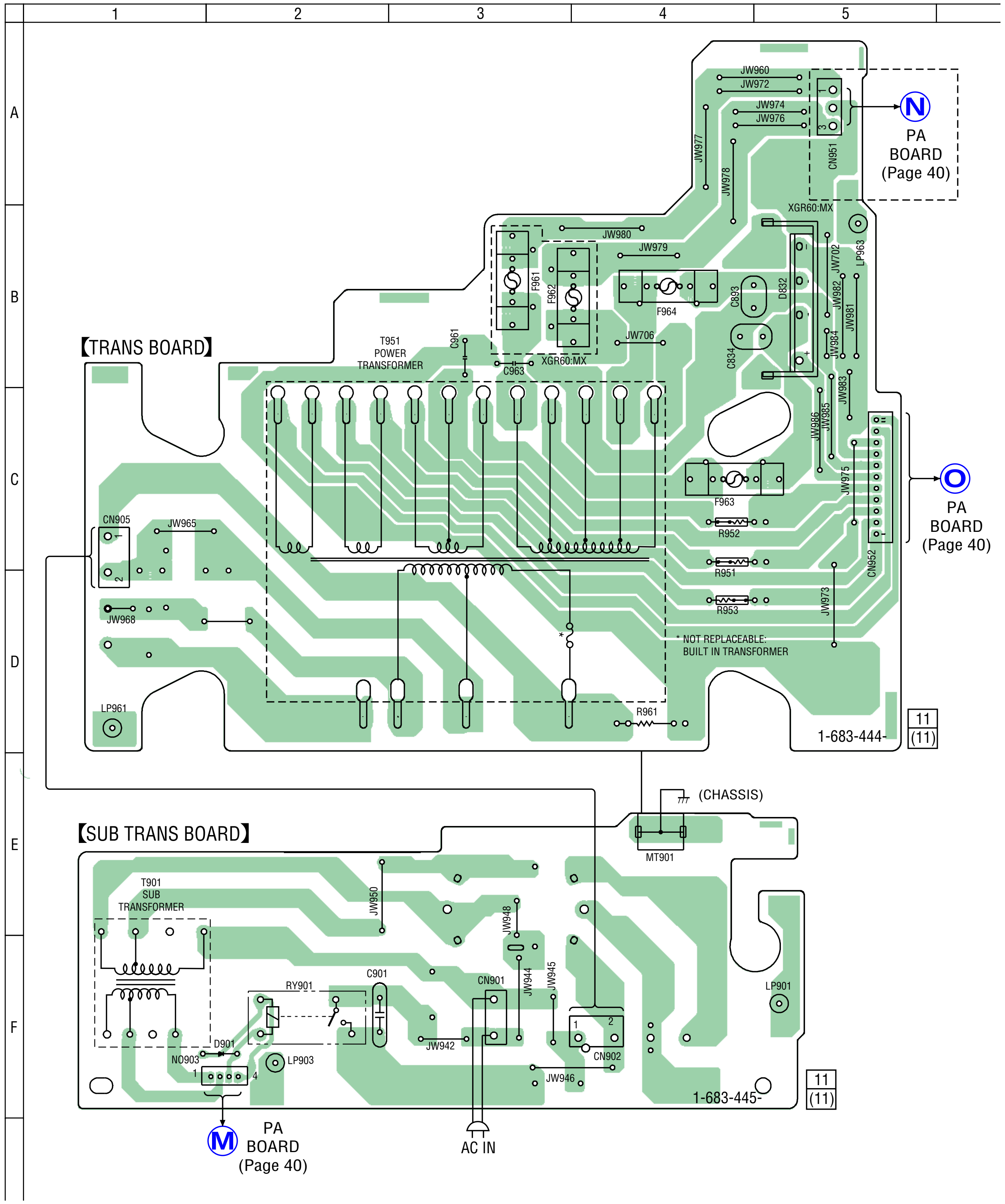
6-20. SCHEMATIC DIAGRAM – PA SECTION –



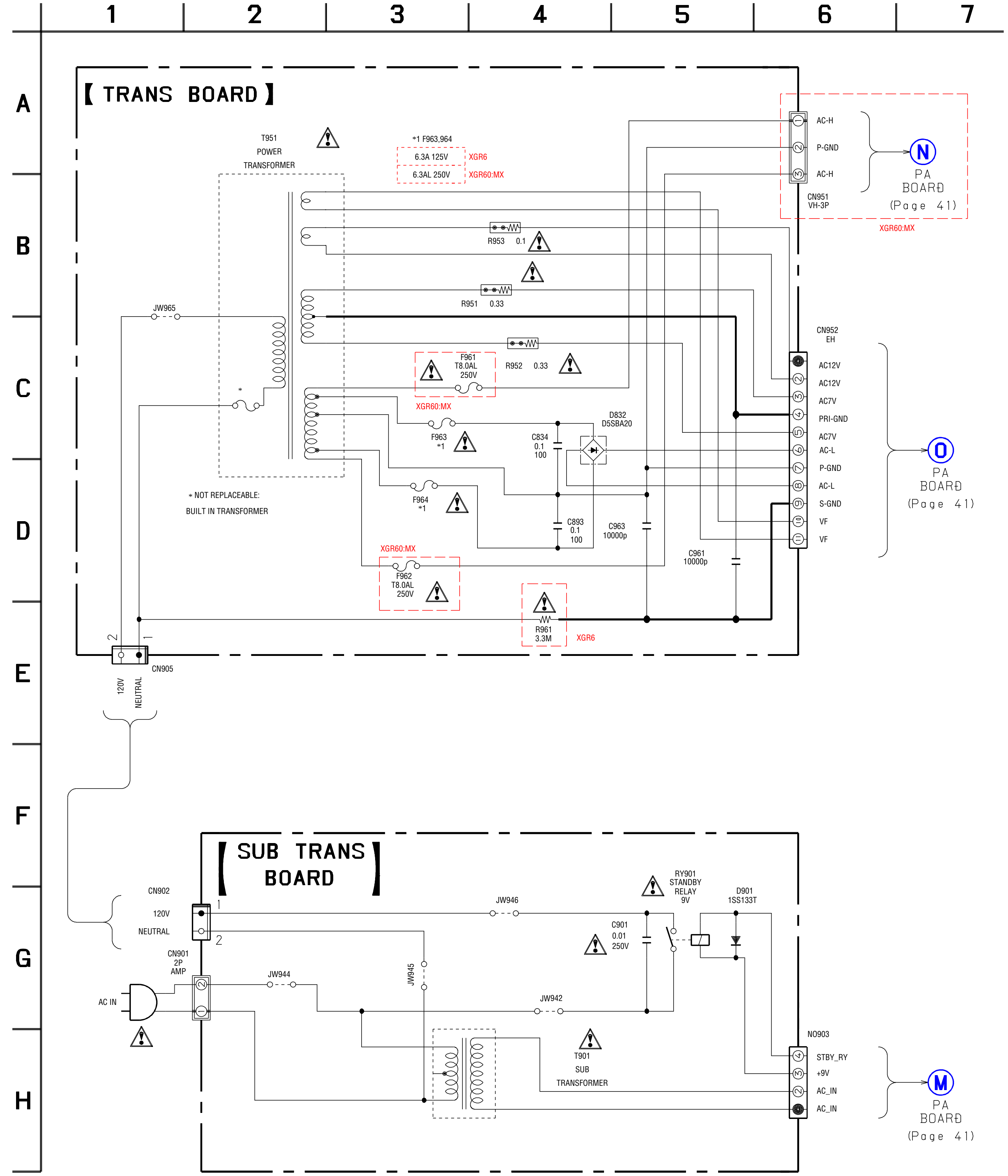
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

6-21.SCHEMATIC DIAGRAM – TRANS, SUB TRANS SECTION (XGR6, XGR60: MX MODEL) –

• See page 21 for Circuit Boards Location.



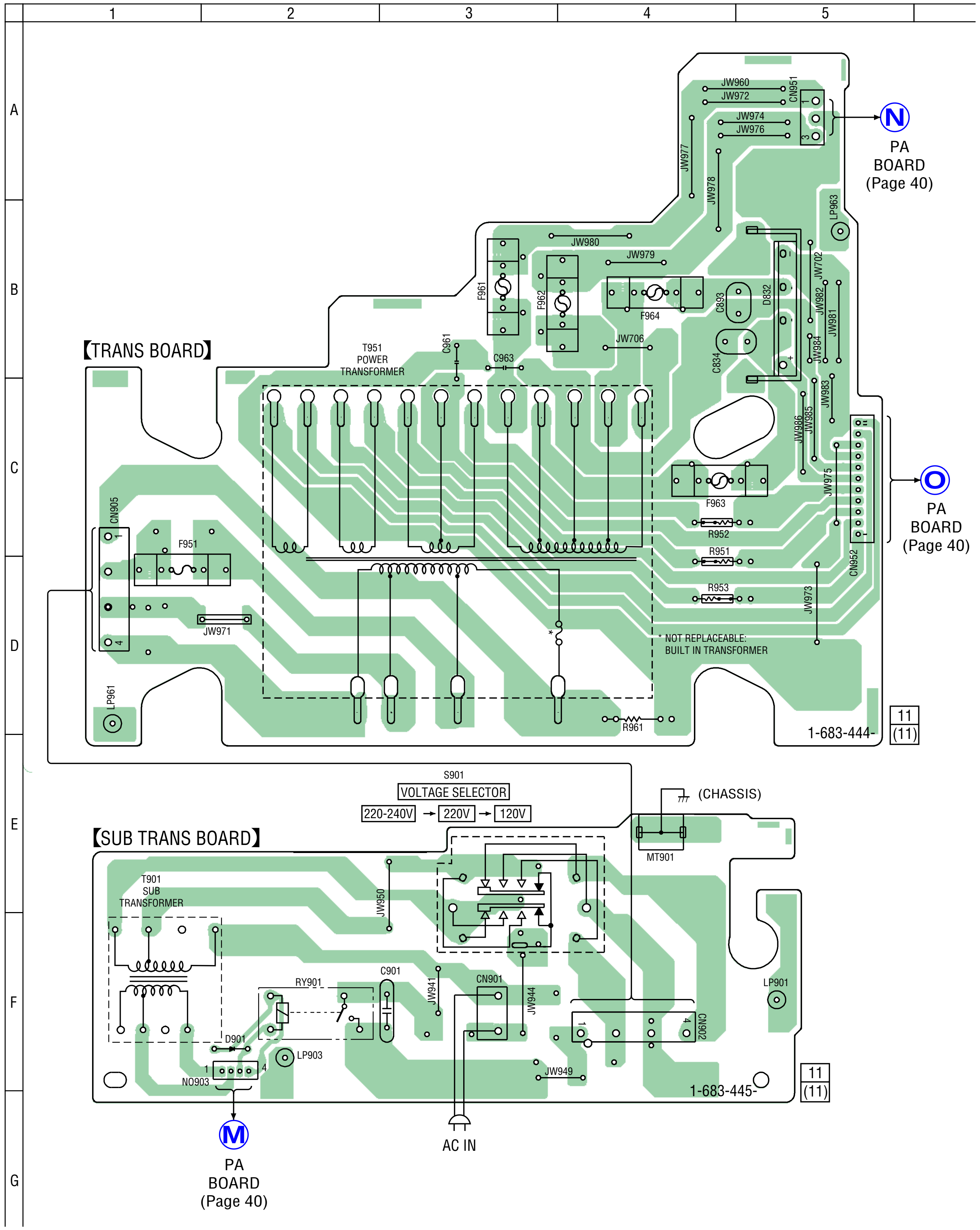
6-22.SCHEMATIC DIAGRAM – TRANS, SUB TRANS SECTION (XGR6, XGR60: MX MODEL) –



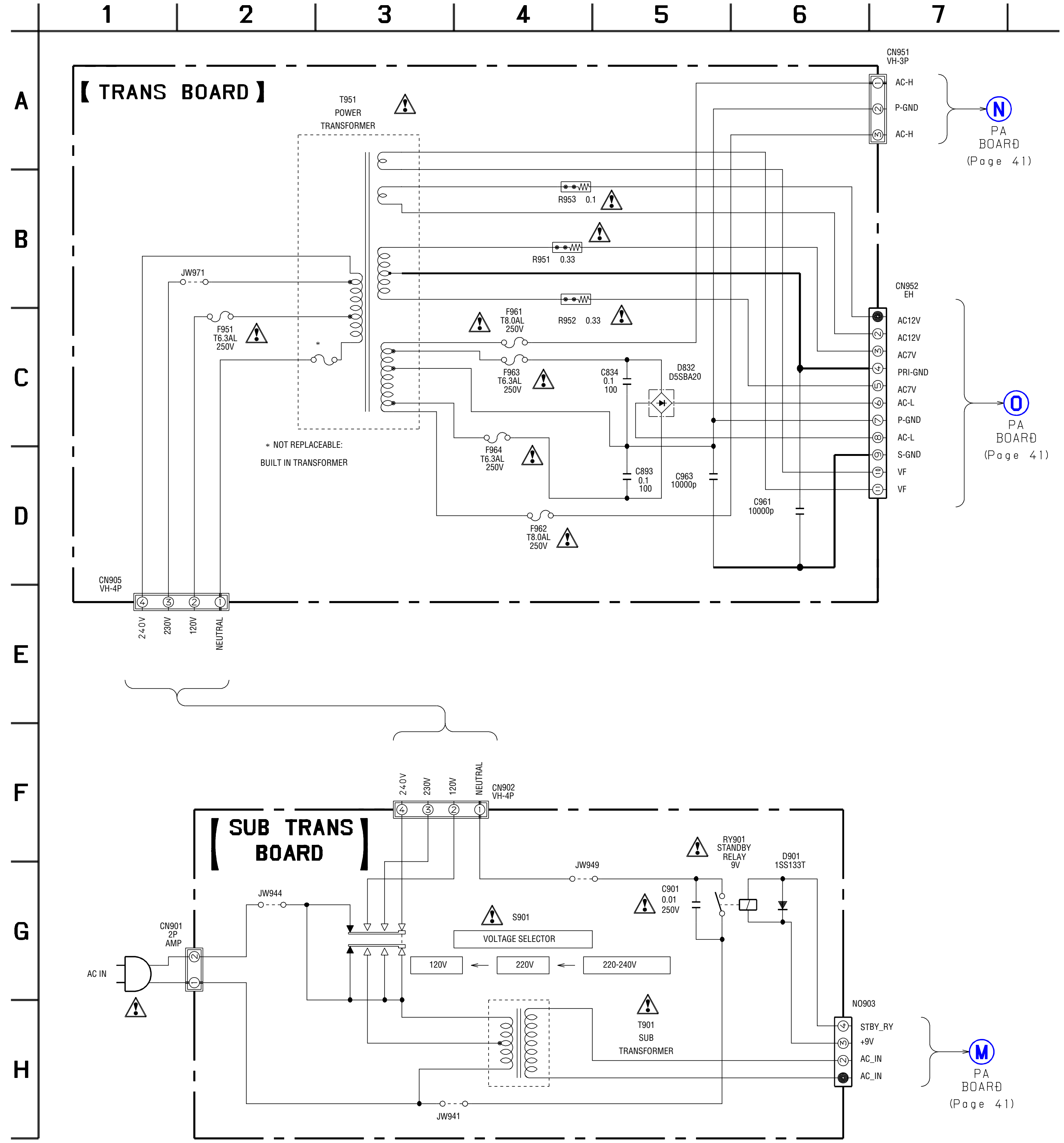
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

6-23.PRINTED WIRING BOARD – TRANS, SUB TRANS SECTION (XGR60:E, E51, AR MODEL) –

• See page 21 for Circuit Boards Location.



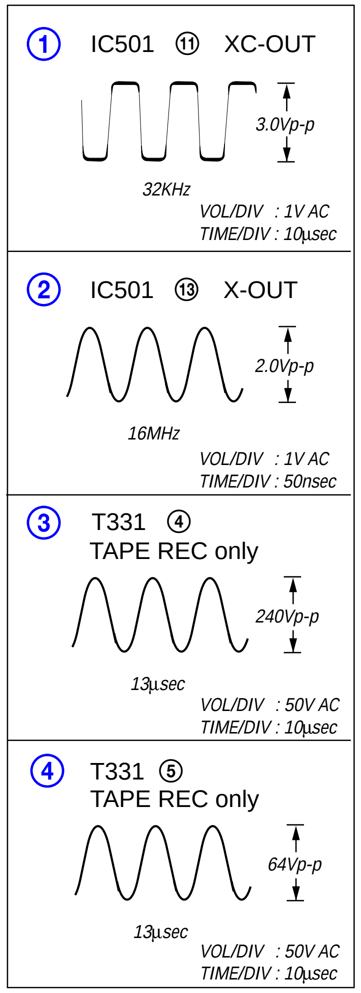
6-24.SCHEMATIC DIAGRAM – TRANS, SUB TRANS SECTION (XGR60:E, E51, AR MODEL) –



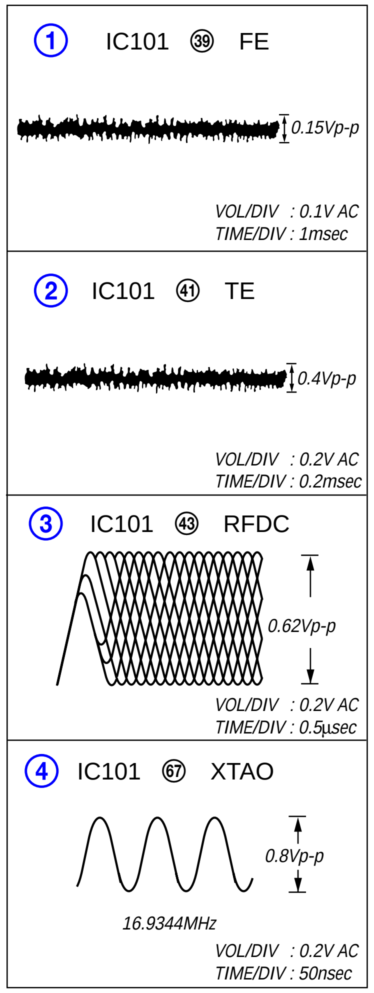
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

● **WAVEFORMS**

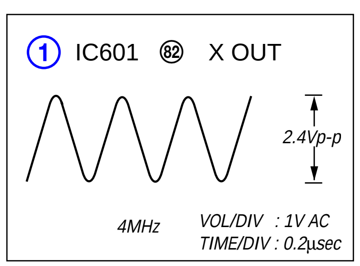
– MAIN BOARD –



– BD BOARD –



– PANEL FL BOARD –



6-25. IC PIN FUNCTIONS

• **IC101 DIGITAL SIGNAL PROCESSOR (CXD3017Q) (BD Board)**

Pin No.	Pin Name	I/O	Description
1	SOSQ	O	Sub-Q serial output
2	SQCK	I	Clock input for SQSO read-out
3	XRST	I	System reset
4	SYSM	I	Muting input
5	DATA	I	Serial date input,supplied from CPU
6	XLAT	I	Latch input,supplied from CPU
7	CLOK	I	Serial date transfer clock input,supplied from CPU
8	SENS	O	SENS output
9	SCLK	I	SENS serial data read-out clock
10	VDD	—	Power supply (+3.3V)
11	ATSK	—	Input pin for anti-shock (Ground)
12	SPOA	—	Ground
13	SPOB	—	Ground
14	XLON	O	Not used (open)
15	WFCK	O	Not used (open)
16	XUGF	O	Not used (open)
17	XPCK	O	Not used (open)
18	GFS	O	Not used (open)
19	2SPO	O	Not used (open)
20	SCOR	O	Sub-code sync output
21	COUT	I/O	Not used (open)
22	MIRR	I/O	Not used (open)
23	DFCT	I/O	Not used (open)
24	FOK	I/O	Not used (open)
25	LOCK	I/O	Not used (open)
26	MDP	O	Output to control spindle motor servo
27	SSTP	I	Input signal to detect disc inner most trak
28	SFDR	O	Sled drive output
29	SRDR	O	Sled drive output
30	TFDR	O	Tracking drive output
31	TRDR	O	Tracking drive output
32	FFDR	O	Focus drive output
33	FRDR	O	Focus drive output
34	VSS	—	Ground
35	TEST	I	TEST pin (connected to ground)
36	TES1	I	TEST pin (connected to ground)
37	XTSL	I	X'tal selection circuit input (connected to ground)
38	VC	I	Center voltage input
39	FE	I	FOCUS error signal input
40	SE	I	Sled error signal input
41	TE	I	Tracking error signal input
42	CE	I	Center servo analog input
43	RFDC	I	RF signal input
44	ADIO	O	Not used (open)
45	AVSS0	—	Analog ground
46	IGEN	I	Power supply pin operational amplifiers
47	AVDDO	—	Power supply (+3.3V)
48	ASYO	O	EFM full swing output
49	ASYI	I	Asymmetry comparator voltage input
50	BIAS	I	Asymmetry circuit constant current input
51	RFAC	I	EFM signal input
52	AVSS3	—	Ground

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Pin No.	Pin Name	I/O	Description
53	CLTV	I	Control voltage input for master VCO
54	FILO	O	Filter output for master PLL
55	FILI	I	Filter input for master PLL
56	PCO	O	Chage-pump output for master PLL
57	AVDD3	—	Powr supply (+3.3V)
58	VSS	—	Ground
59	VDD	—	Power supply (+3.3V)
60	DOUT	O	CD data output
61	LRCK	O	Not used (open)
62	PCMD	O	Not used (open)
63	BCK	O	Not used (open)
64	EMPH	O	Not used (open)
65	XVDD	—	Power supply (+3.3V)
66	XTAI	I	X’tal oscillator circuit input (16.9344MHz)
67	XTAO	O	X’tal oscillator circuit output (16.9344MHz)
68	XVSS	—	Ground
69	AVDD1	—	Power supply (+3.3V)
70	AOUT1	O	Lch : Analog output
71	AIN1	I	Lch : OPAMP input
72	LOUT1	O	Lch : LINE output
73	AVSS1	—	Ground
74	AVSS2	—	Ground
75	LOUT2	O	Rch : LINE output
76	AIN2	I	Rch : OPAMP input
77	AOUT2	O	Rch : Analog output
78	AVDD2	—	Power supply (+3.3V)
79	RMUT	O	Not used (open)
80	LMUT	O	Not used (open)

- **IC501 M30620MCN-A01FP SYSTEM CONTOL (MAIN Board)**

Pin No.	Pin Name	I/O	Description
1	AUDIO-OUT	O	MD output mute signal output
2	STEREO	I	Stereo signal input
3	TUNED	I	Tuned signal input
4	SIRCS	I	SIRCS input
5	CD-MUTE	O	CD mute signal output
6	–	—	Not used (open)
7	–	—	Not used (open)
8	BYTE	I	Not used (connected to ground)
9	CNVSS	—	Not used (Connected to ground with resistor)
10	XC-IN	I	Sub clock input
11	XC-OUT	O	Sub clock output
12	RESET	I	System reset input
13	X-OUT	O	Main system clock output (16MHz)
14	VSS	—	Ground
15	X-IN	I	Main system clock input (16MHz)
16	VCC	—	Power supply (+5V)
17	NMI	I	Not used (Pull up with resistor)
18	RDS-INT	I	Not used (Connected to ground with resistor)
19	SCOR	I	CD Q-Data request input
20	AC-CUT	I	AC cut check signal input
21	ST-MUTE	O	Tuner mute signal output
22	ST-CE	O	Tuner chip enable signal output
23	ST-DOUT	O	Tuner data output
24	BU-PWM3	O	BU PWM 3 (for CD-RW) signal output
25	ST-DIN	I	Tuner data input
26	BU-PWM2	O	BU PWM 2 (for CD-RW) signal output
27	ST-CLK	O	Tuner clock signal output
28	BU-PWM1	O	BU PWM 1 (for CD-RW) signal output
29	IIC-CLK	I	IIC serial data clock input
30	IIC-DATA	I	IIC serial data input
31	–	—	Not used (open)
32	SQ-DATA	I	CD data input
33	SQ-CLK	O	CD data clock output
34	SENS	I	SENS signal input from CXD3017Q
35	CD-DATA	O	CD data output
36	XLT	O	CD latch signal output
37	CD-CLK	O	CD data clock output
38	CD-POWER	O	CD power on/off signal output
39	CLK-OUT	O	Not used (open)
40	HOLD	O	Laser diode control signal output
41	OTM-RESET	O	Other micom reset
42	–	—	Not used (open)
43	XRST	O	CD reset signal output
44	MTR-CTRL1	O	CD motor control 1 output
45	MTR-CTRL2	O	CD motor control 2 output
46	REC-A	I	Record tab switch for SIDE-A signal input
47	LED-DISC	O	DISC LED on/off signal output
48	BU UP/DW SW	I	BU up switch signal input
49	TBL-SENS	I	Table sensor signal input
50	REC-B	I	Record tab switch for SIDE-B signal input
51	A-TRG	O	TCM-A trigger output
52	B-TRG	O	TCM-B Trigger output
53	AMS-IN	I	AMS signal input

Pin No.	Pin Name	I/O	Discription
54	CAPM-H/L	O	Capstan motor high/low signal output
55	CAPM-CTRL	O	Capstan motor REV/FWD/STOP control signal output
56	A-PLAY	I	TCM-A play switch input
57	B-PLAY	I	TCM-B play switch input
58	TC-MUTE	O	TC line mute signal output
59	REC/PB/PASS	O	Not used (open)
60	NR ON/OFF	O	Not used (open)
61	REC-MUTE	O	REC mute signal output
62	VCC	—	Power supply (+3.3V)
63	SOFT-TEST	O	Soft check output
64	VSS	—	Ground
65	BIAS	O	Bias on/off signal output
66	EQ-H/N	O	EQ high/Normal signal output
67	PB-A/B	O	TC A/B select signal output
68	ALC	O	ALC signal output
69	TC-RELAY	O	TC relay control signal output
70	A-HALF	I	A deck half detection signal input
71	FUNC-SEL0	O	Function select A signal output
72	FUNC-SEL1	O	Function select B signal output
73	KEY-ECO	I	ECO key signal input
74	KEY-POWER	I	Power key signal input
75	LED-STBY	O	Standby LED driver signal output
76	VIDEO-MUTE	O	Video mute signal output
77	PL-LAT	O	Not used (open)
78	PL-DAT	O	Not used (open)
79	PL-CLK	O	Not used (open)
80	EQIC-DAT	O	Serial data output to Audio EQIC
81	EQIC-CLK	O	Serial data clock output to Audio EQIC
82	LINE-MUTE	O	TA LINE mute signal output
83	STK-MUTE	O	Mute signal output to power IC
84	STBY-RELAY	O	Standby relay driver signal output
85	REAR-RELAY	O	Rear speaker relay driver signal output
86	HP-MUTE	O	Headphone mute signal output
87	FRONT-RELAY	O	Front speaker relay driver signal output
88	$\overline{\text{PROTECT}}$	I	Speaker protection signal input
89	A-SHUT	I	TCM-A reel pulse input
90	B-SHUT	I	TCM-B reel pulse input
91	B-HALF	I	B deck half detection input
92	MODEL-IN	I	Model input
93	DEST-IN	I	Destination input
94	DBFB-H/L	O	DBFB high/low signal output
95	HP-IN	I	Headphone detect input
96	AVSS	—	Ground
97	SW-MODE	O	Super woofer mode signal output
98	VREF	I	Reference voltage input
99	AVCC	—	Power supply (+3.3V)
100	RDS-DATA	I	Not used (Connected to ground)

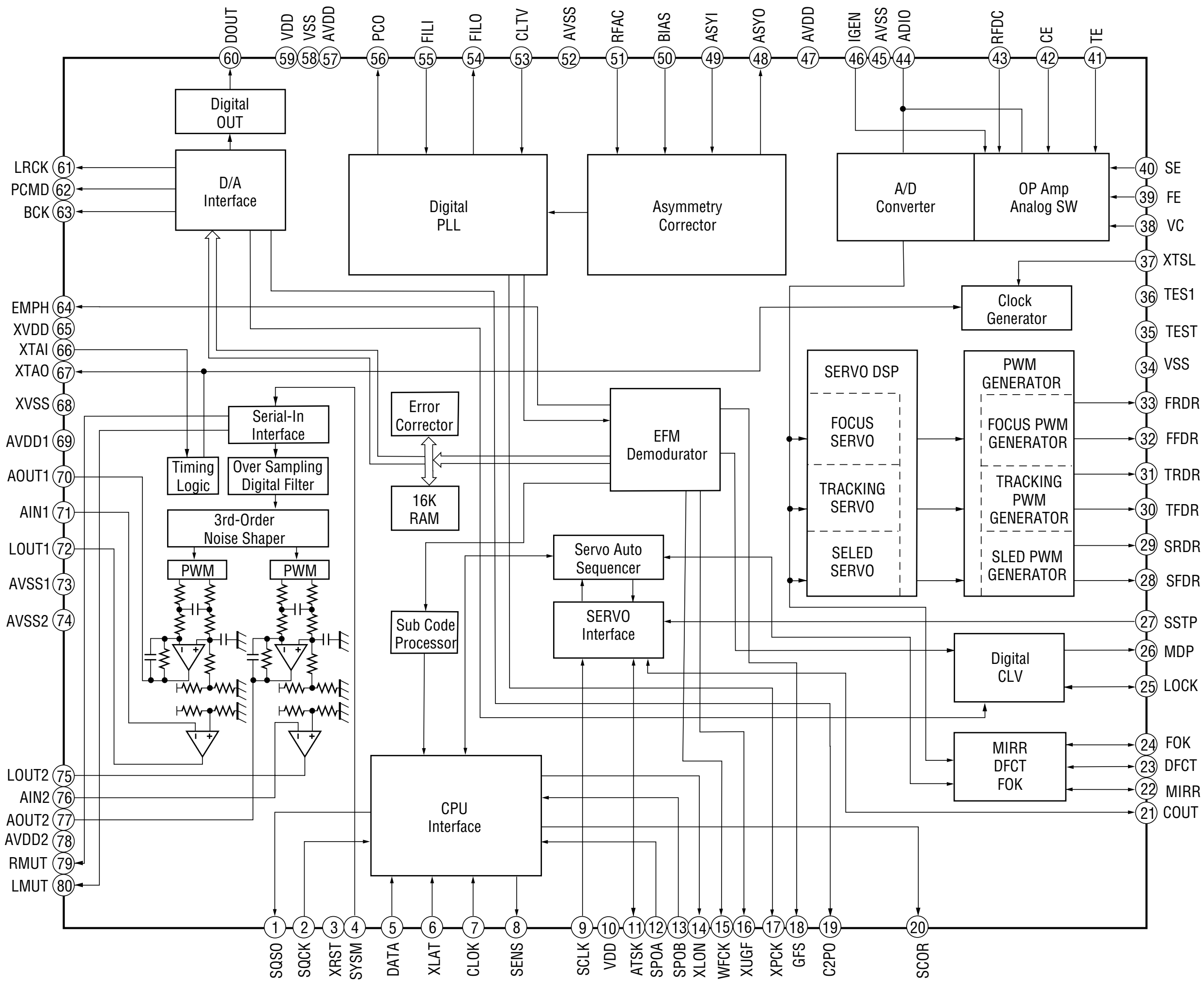
• IC601 MB90M407APF-G-112-BND DISPLAY CONTROL (PANEL FL Board)

Pin No.	Pin Name	I/O	Description
1	GR-16	O	FLD grid output
2	GR-15	O	FLD grid output
3	GR-14	O	FLD grid output
4	GR-13	O	FLD grid output
5	GR-12	O	FLD grid output
6	GR-11	O	FLD grid output
7	GR-10	O	FLD grid output
8	GR-9	O	FLD grid output
9	GR-8	O	FLD grid output
10	GR-7	O	FLD grid output
11	VSS-IO	—	Ground
12	GR-6	O	FLD grid output
13	GR-5	O	FLD grid output
14	GR-4	O	FLD grid output
15	GR-3	O	FLD grid output
16	GR-2	O	FLD grid output
17	GR-1	O	FLD grid output
18	SEG-1	O	FLD segment output
19	SEG-2	O	FLD segment output
20	SEG-3	O	FLD segment output
21	SEG-4	O	FLD segment output
22	SEG-5	O	FLD segment output
23	VDD-FIP	—	Power supply (+3.3V)
24	SEG-6	O	FLD segment output
25	SEG-7	O	FLD segment output
26	SEG-8	O	FLD segment output
27	SEG-9	O	FLD segment output
28	SEG-10	O	FLD segment output
29	SEG-11	O	FLD segment output
30	SEG-12	O	FLD segment output
31	SEG-13	O	FLD segment output
32	SEG-14	O	FLD segment output
33	SEG-15	O	FLD segment output
34	SEG-16	O	FLD segment output
35	SEG-17	O	FLD segment output
36	SEG-18	O	FLD segment output
37	SEG-19	O	FLD segment output
38	SEG-20	O	FLD segment output
39	SEG-21	O	FLD segment output
40	SEG-22	O	FLD segment output
41	SEG-23	O	FLD segment output
42	VSS-IO	—	Ground
43	SEG-24	O	FLD segment output
44	SEG-25	O	FLD segment output
45	NO USED	O	Not used (open)
46	NO USED	O	Not used (open)
47	NO USED	O	Not used (open)
48	VKK	—	Power supply (-35V)
49	MD0	I	Not used (pull up with resistor)
50	MD1/VDD-VFT	I	Not used (pull up with resistor)
51	MD2	I	Not used (pull down with resistor)
52	D-SW	I	CD lid open/close detect signal input
53	DIST	O	Guitar distortion ON/OFF signal output

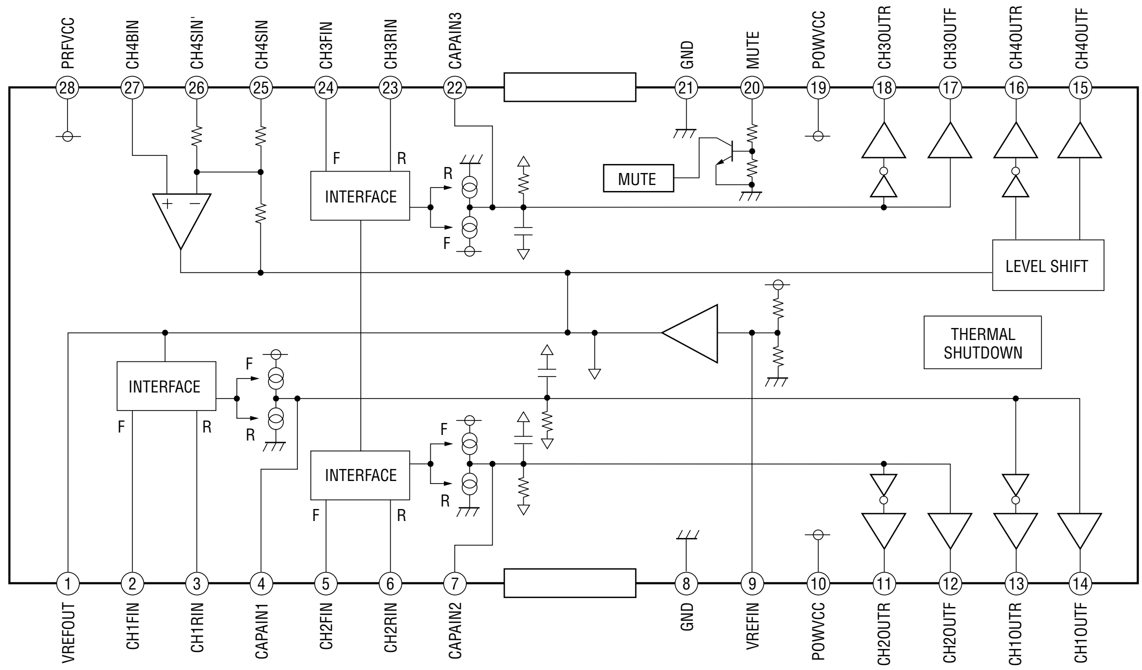
Pin No.	Pin Name	I/O	Description
54	SOFT TEST	O	Not used (open)
55	LED SELB	O	LED group B select signal output
56	VOL A	I	Volume encoder signal A input
57	VOL B	I	Volume encoder signal B input
58	JOG A	I	AMS jog dial encoder signal A input
59	JOG B	I	AMS jog dial encoder signal B input
60	I2C-DATA	O	IIC serial data output
61	I2C-CLOCK	O	IIC clock signal output
62	AVCC	—	Power supply (+3.3V)
63	AVSS	—	Ground
64	KEY0	I	Key input (A/D port)
65	KEY1	I	Key input (A/D port)
66	KEY2	I	Key input (A/D port)
67	KEY3	I	Key input (A/D port)
68	KEY4	I	Key input (A/D port)
69	KEY5	I	Key input (A/D port)
70	BPF1-F02	I	Spectrum analyzer BPF signal input
71	BPF2-F03	I	Spectrum analyzer BPF signal input
72	BPF2-F04	I	Spectrum analyzer BPF signal input
73	BPF2-F05	I	Spectrum analyzer BPF signal input
74	BPF2-F06	I	Spectrum analyzer BPF signal input
75	ALL BAND	I	L+R signal input
76	LED-SCK	O	Serial clock output to LED driver
77	RESET	I	Reset input
78	LED-DAT	O	Serial data output to LED driver
79	LED-LATCH	O	Latch signal output to LED driver
80	LED-SELA	O	LED group A select signal output
81	VSS-CPU	—	Ground
82	XOUT	O	Crystal oscillator output (4MHz)
83	XIN	I	Crystal oscillator input (4MHz)
84	VCC-CPU	—	Power supply (+3.3V)
85 to 100	NO USED	O	Not used (open)

6-26. IC BLOCK DIAGRAMS

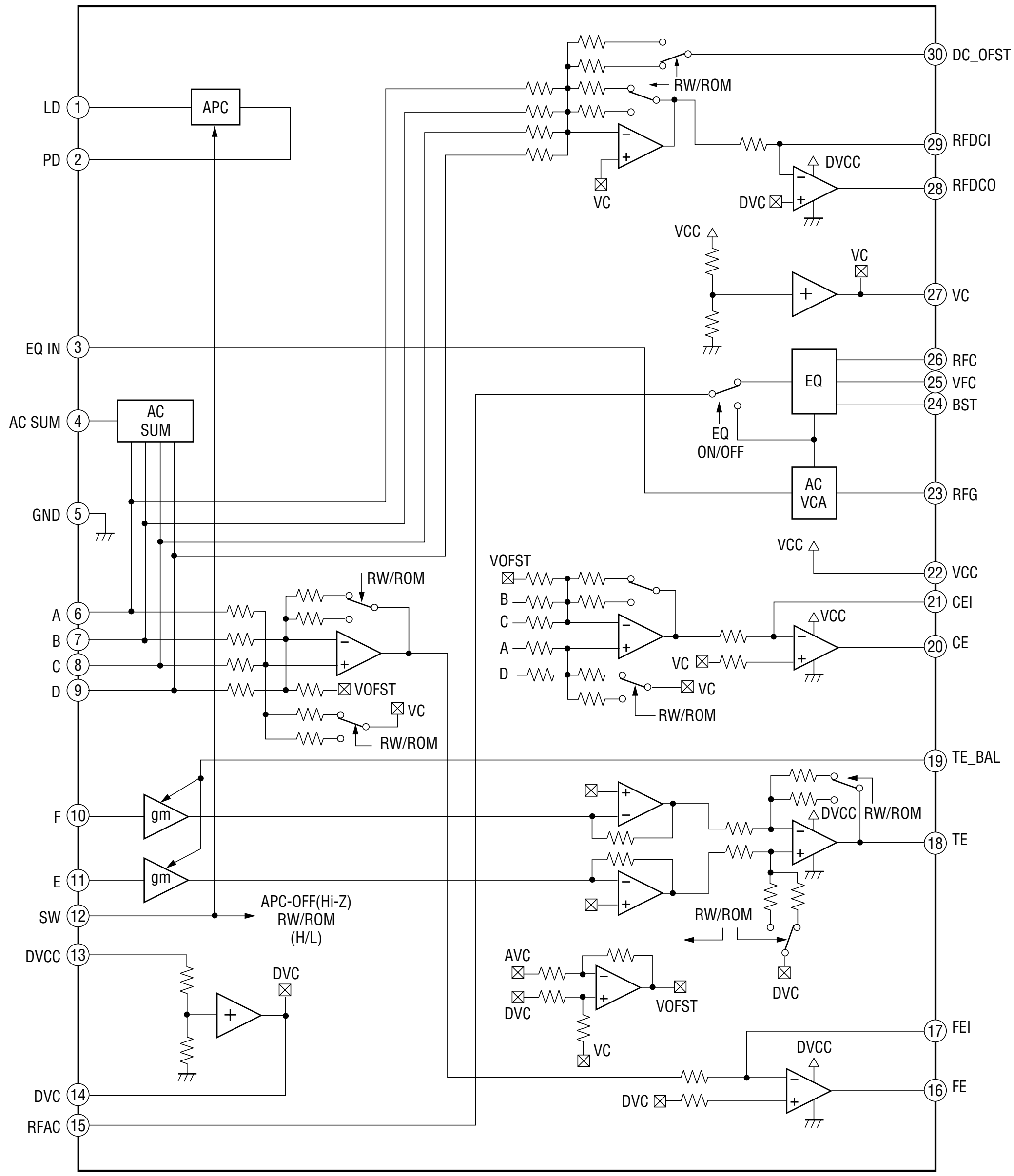
IC101 CXD3017Q (BD BOARD)



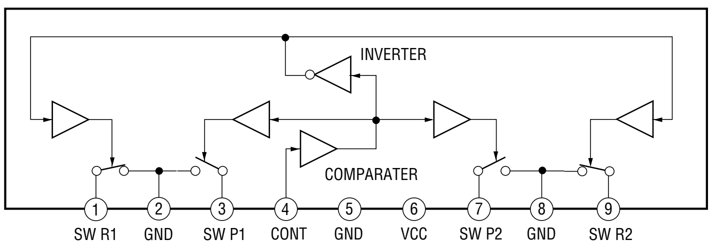
IC102 BA5974FM-E2 (BD BOARD)



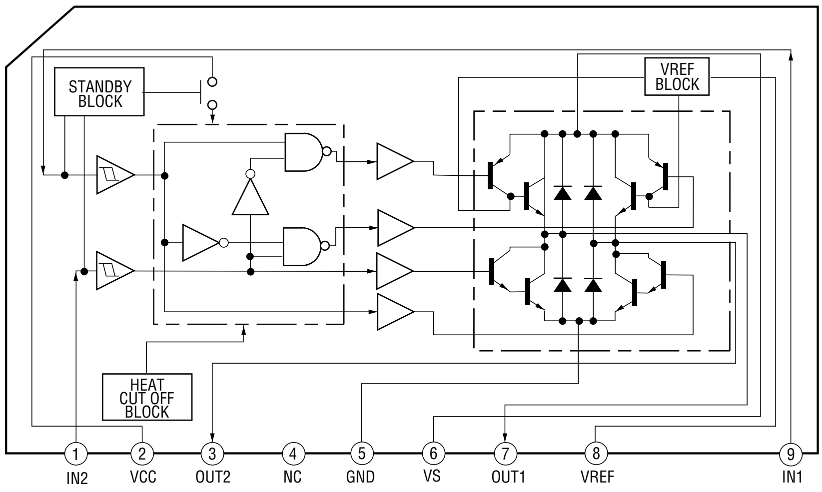
IC103 CXA2581N-T4 (BD BOARD)



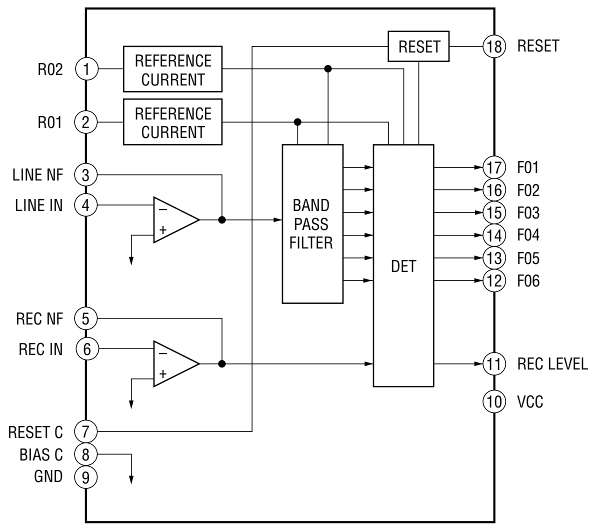
IC321 µPC1330HA (MAIN BOARD (3/3))



IC201 TA8409 (MOTOR BOARD)



IC602 BA3830F (PANEL FL BOARD)

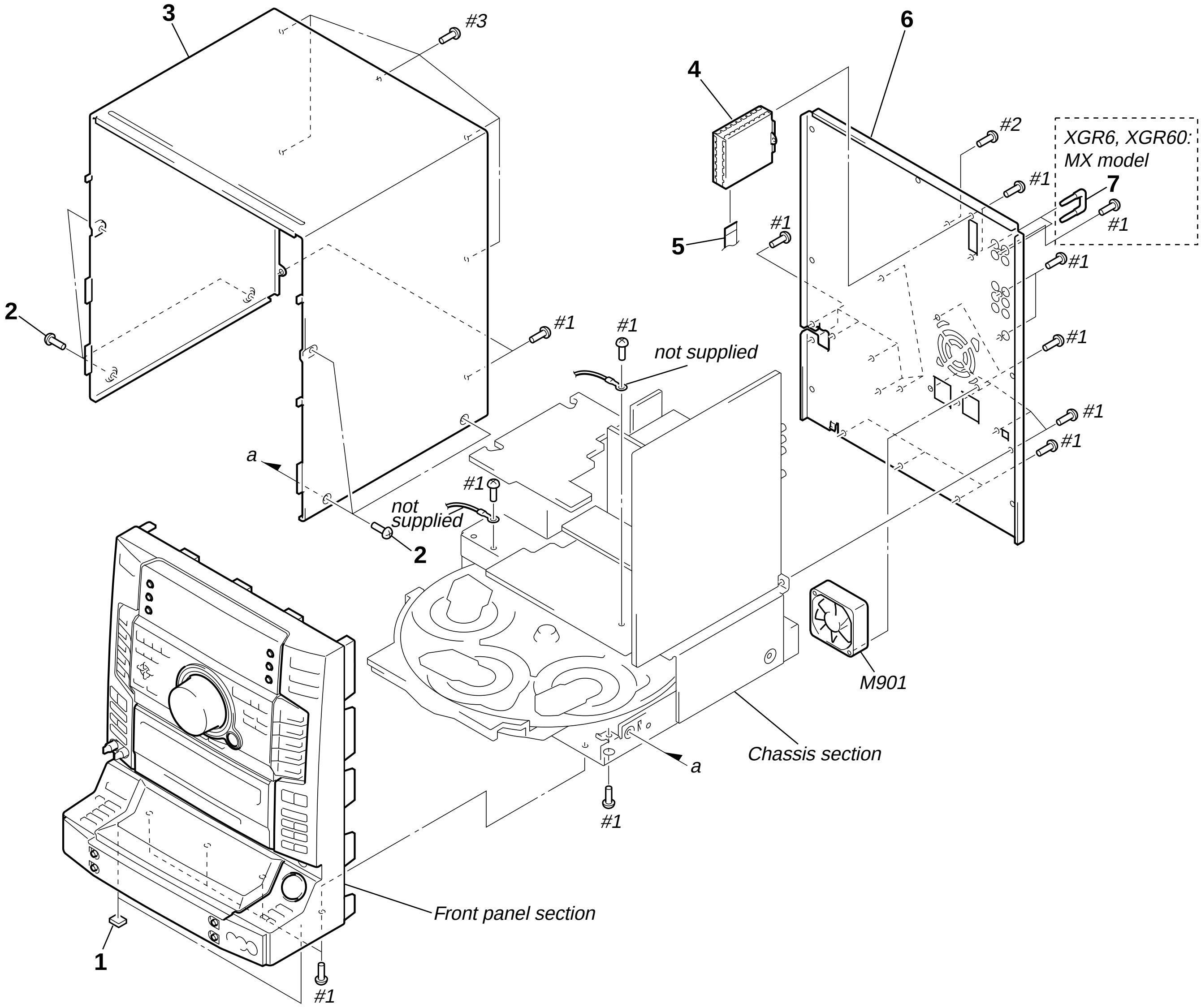


SECTION 7
EXPLODED VIEWS

NOTE:
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories are given in the last of this parts list.
- Abbreviation
  MX : Mexican model
  E51 : Chilean and Peruvian model
  AR : Argentina model

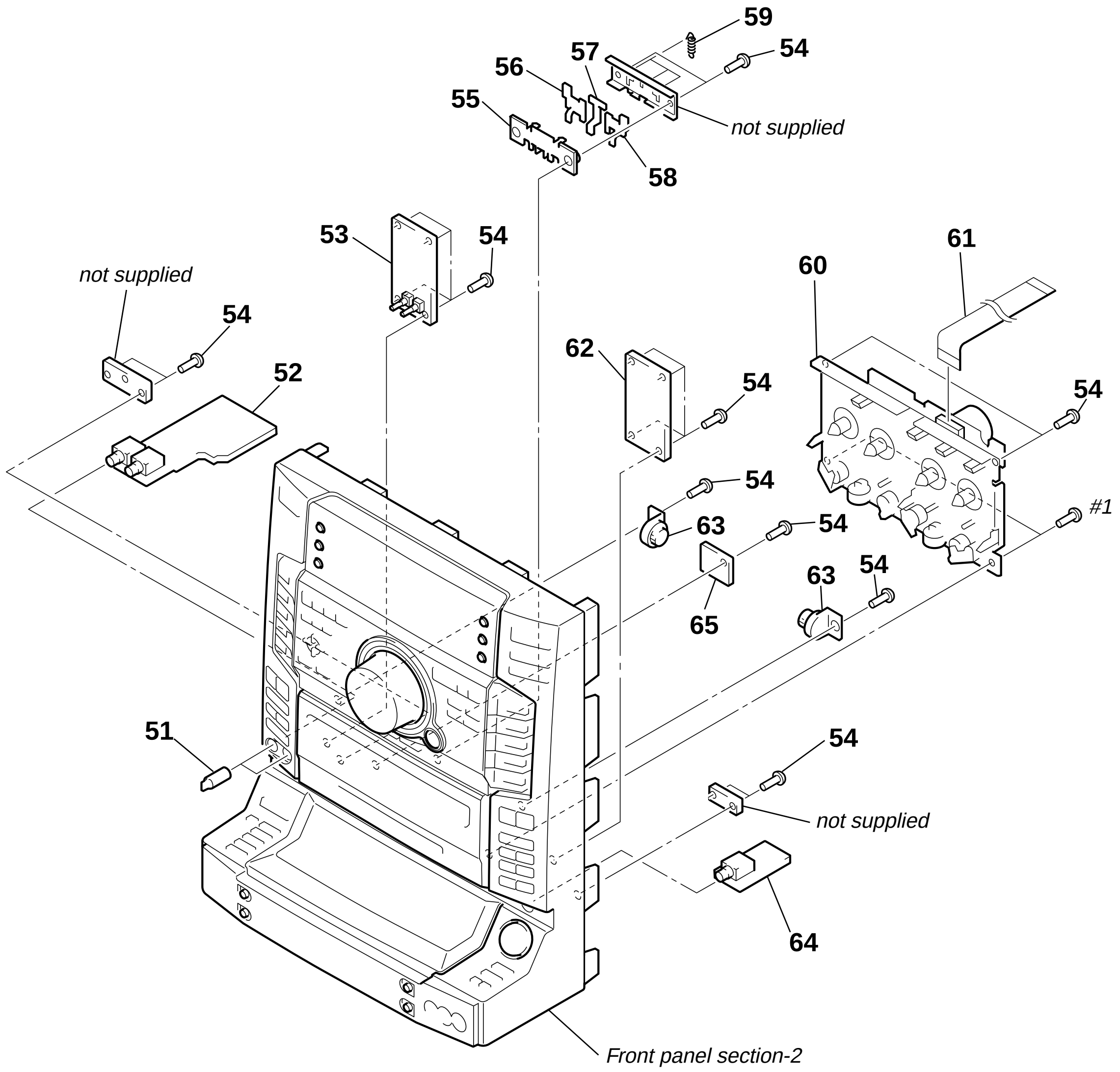
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

7-1. CASE, BACK PANEL SECTION



Ref. No.	Part No.	Description	Remarks
1	4-948-236-21	CUSHION (107)	
2	3-363-099-01	SCREW (CASE 3 TP2)	
3	4-237-661-11	CASE	
4	1-693-572-11	TUNER (FM/AM) (XGR60:AR,MX)	
4	1-693-573-11	TUNER (FM/AM) (XGR6)	
4	1-693-574-11	TUNER (FM/AM) (XGR60:E,E51)	
5	1-769-945-11	WIRE (FLAT TYPE) (11 CORE)	
6	4-237-748-01	PANEL, BACK (XGR6)	
6	4-237-748-21	PANEL, BACK (XGR60:E)	
6	4-237-748-31	PANEL, BACK (XGR60:E51)	
6	4-237-748-41	PANEL, BACK (XGR60:MX)	
6	4-237-748-51	PANEL, BACK (XGR60:AR)	
7	1-535-706-21	PLUG, JUMPER (XGR6,XGR60:MX)	
M901	1-763-072-11	FAN, DC	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-872-09	SCREW +BVTT 3X8 (S)	
#3	7-685-871-01	SCREW +BVTT 3X6 (S)	

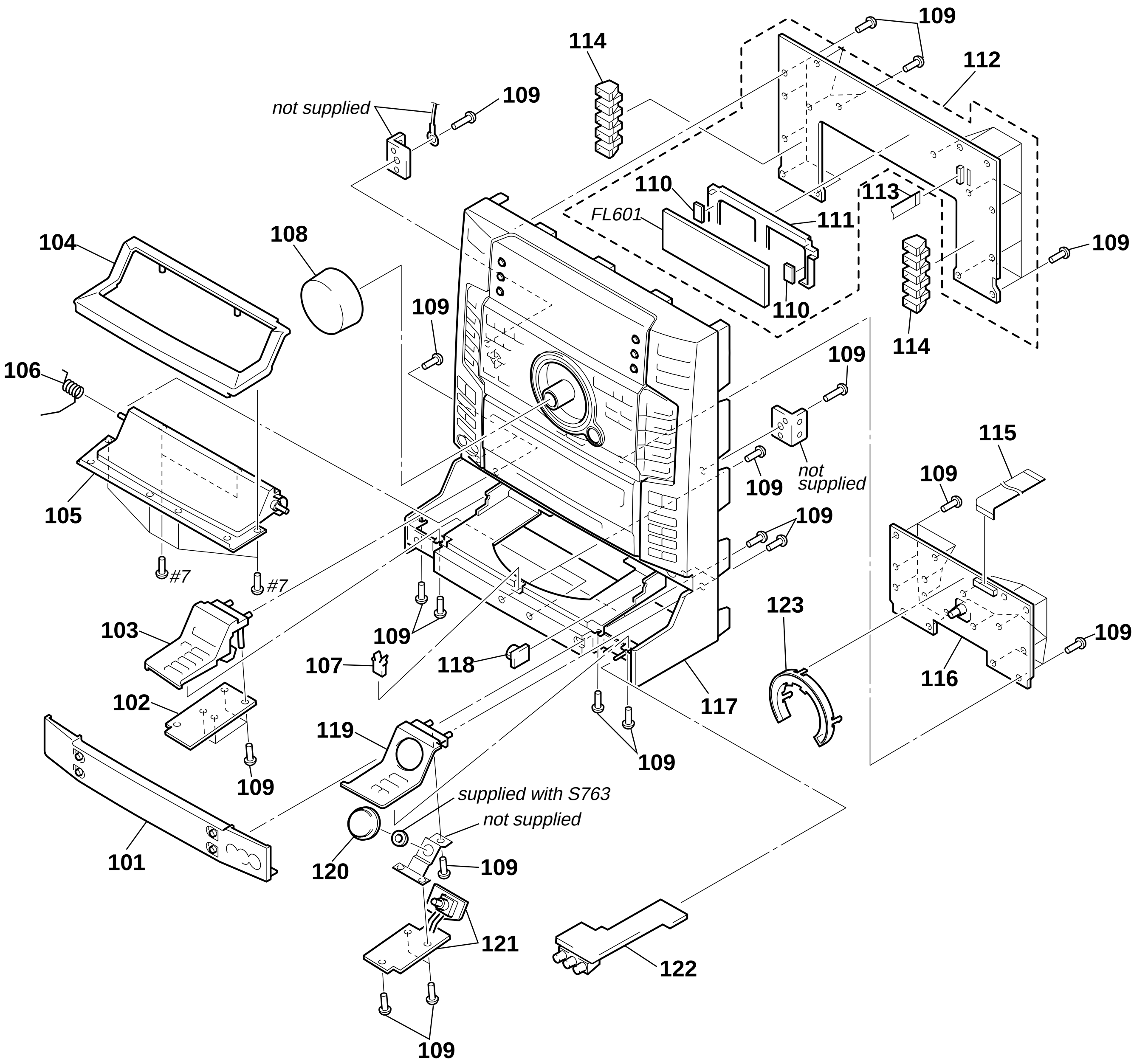
7-2. FRONT PANEL SECTION-1



Ref. No.	Part No.	Description	Remarks
51	4-237-635-01	KNOB (MIC)	
52	A-4727-633-A	MIC/GUITAR BOARD, COMPLETE	
53	1-683-448-11	TC-A BOARD	
54	4-951-620-01	SCREW (2.6X8), +BVTP	
55	4-237-648-01	COVER (EJECT)	
56	4-237-645-01	LEVER (EJECT-A)	
57	4-237-647-01	LEVER (EJECT-C)	
58	4-237-646-01	LEVER (EJECT-B)	

Ref. No.	Part No.	Description	Remarks
59	4-237-659-01	SPRING (LEVER)	
60	1-796-333-11	DECK, MECHANICAL	
61	1-773-021-11	WIRE (FLAT TYPE) (15 CORE)	
62	1-683-449-11	TC-B BOARD	
63	3-354-963-01	DAMPER	
64	1-683-450-11	HEADPHONE BOARD	
65	1-684-683-11	D-SW BOARD	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	

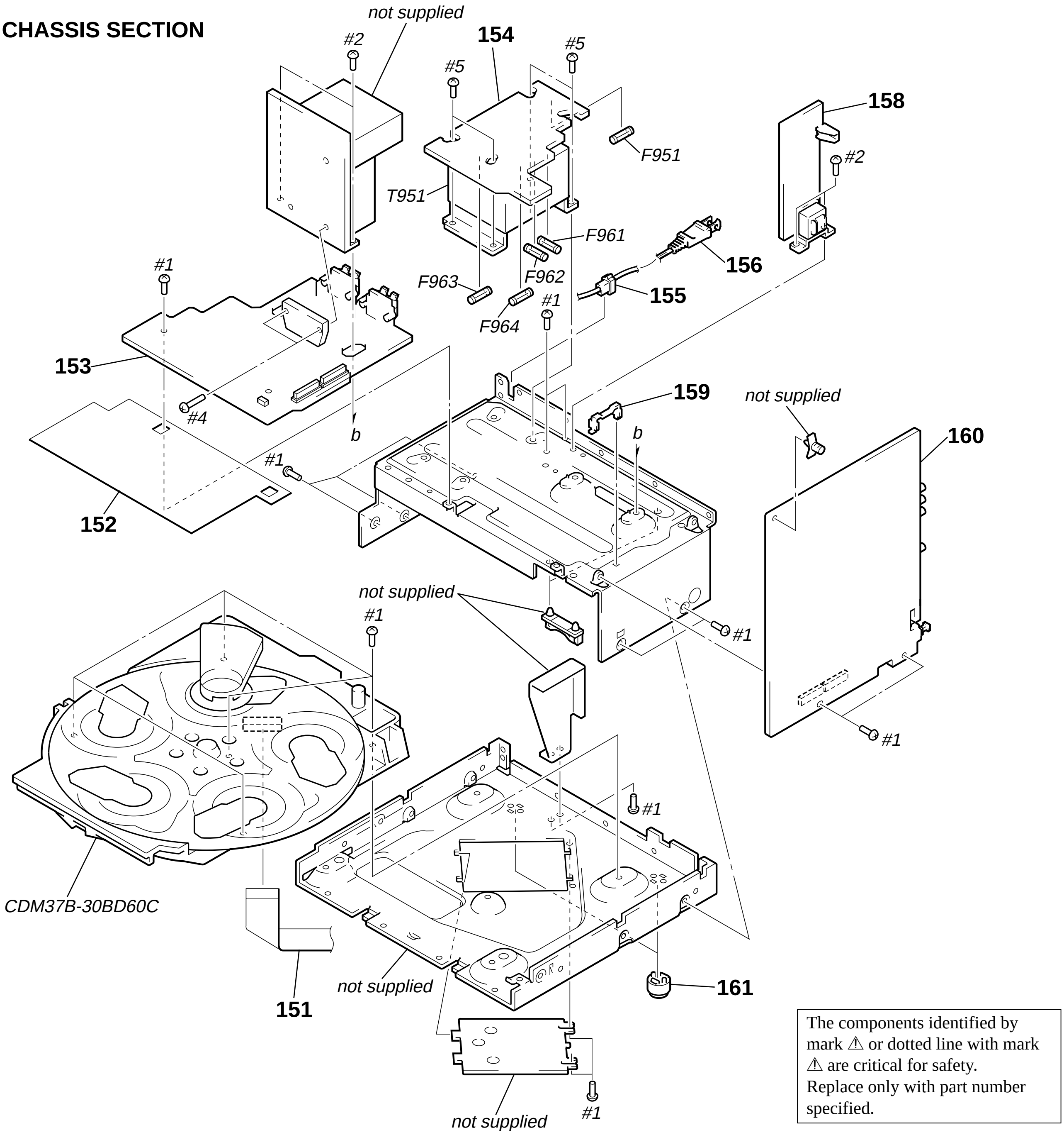
7-3. FRONT PANEL SECTION-2



Ref. No.	Part No.	Description	Remarks
101	4-237-649-01	BUMPER (PANEL) (XGR6)	
101	4-237-649-11	BUMPER (PANEL) (XGR60)	
102	1-683-452-11	CD-L BOARD	
103	X-4954-371-1	SUB PANEL (CD-L) ASSY	
104	4-237-638-01	LID(CD)	
105	4-237-630-01	WINDOW (CD)	
106	4-237-658-01	SPRING (CD)	
107	4-040-472-01	LATCH, D.C.	
108	4-237-634-01	KNOB (VOLUME)	
109	4-951-620-01	SCREW (2.6X8), +BVTP	
110	4-949-935-81	CUSHION (FL)	
111	4-225-511-01	HOLDER FL TUBE	
112	A-4727-623-A	PANEL FL BOARD, COMPLETE	
113	1-773-118-11	WIRE (FLAT TYPE) (19 CORE)	

Ref. No.	Part No.	Description	Remarks
114	4-237-639-01	HOLDER (LED 1)	
115	1-773-178-11	WIRE (FLAT TYPE) (23 CORE)	
116	A-4727-624-A	PANEL VR BOARD, COMPLETE	
117	X-4954-360-1	FRONT PANEL ASSY (XGR6)	
117	X-4954-378-1	FRONT PANEL ASSY (XGR60)	
118	4-224-104-01	DAMPER	
119	X-4954-372-1	SUB PANEL (CD-R) ASSY	
120	4-237-636-01	KNOB (CD)	
121	1-683-453-11	CD-R BOARD	
122	1-683-454-11	FRONT INPUT BOARD	
123	4-237-640-01	HOLDER (LED 2)	
FL601	1-518-794-11	INDICATOR TUBE, FLUORESCENT	
#7	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	

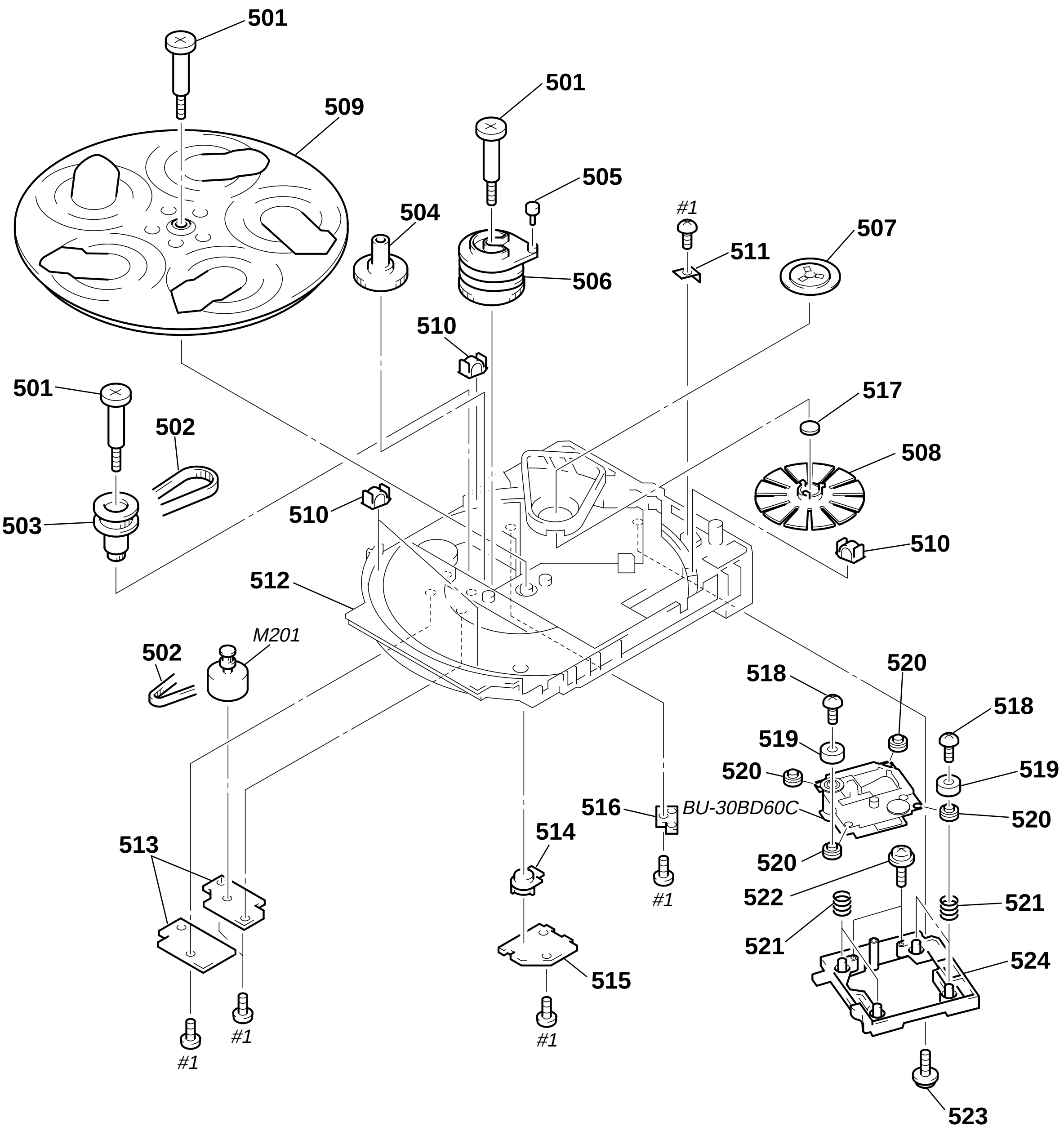
7-4. CHASSIS SECTION



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

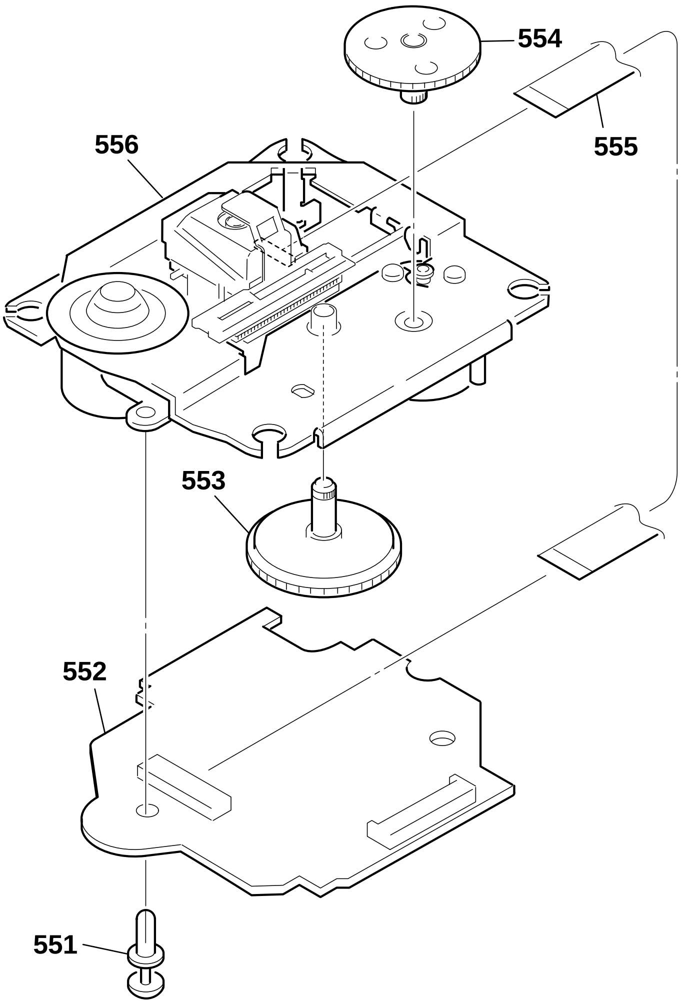
Ref. No.	Part No.	Description	Remarks
151	1-823-750-11	WIRE (FLAT TYPE) (21 CORE)	
152	4-235-701-01	DUST COVER	
153	A-4727-618-A	PA BOARD, COMPLETE (XGR60)	
153	A-4727-641-A	PA BOARD, COMPLETE (XGR6)	
154	1-683-444-11	TRANS BOARD	
155	3-703-244-00	BUSHING (FBS001), CORD (XGR6,XGR60:AR,E51)	
155	4-966-266-01	BUSHING (S) (FBS002), CORD (XGR60:E,MX)	
⚠156	1-575-653-11	CORD, POWER (XGR60:MX)	
⚠156	1-777-071-81	CORD, POWER (XGR60:E51)	
⚠156	1-783-820-11	CORD, POWER (XGR6)	
⚠156	1-783-941-12	CORD, POWER (XGR60:AR)	
⚠156	1-791-901-11	CORD, POWER (XGR60:E)	
158	1-683-445-11	SUB TRANS BOARD	
* 159	4-988-533-01	HOLDER, PWB	
160	A-4440-764-A	MAIN BOARD, COMPLETE (XGR60:AR,E,E51)	
160	A-4676-330-A	MAIN BOARD, COMPLETE (XGR60:MX)	
160	A-4727-645-A	MAIN BOARD, COMPLETE (XGR6)	
161	X-494-122-81	FOOT (F22125H-M)	
⚠F951	1-532-506-31	FUSE (6.3A 250V) (XGR60:AR,E,E51)	
⚠F961	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (8.0A 250V) (XGR60)	
⚠F962	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (8.0A 250V) (XGR60)	
⚠F963	1-532-506-31	FUSE (6.3A 250V) (XGR60)	
⚠F963	1-533-310-11	FUSE, GLASS CYLINDRICAL(DIA.5) (6.3A 125V) (XGR6)	
⚠F964	1-532-506-31	FUSE (6.3A 250V) (XGR60)	
⚠F964	1-533-310-11	FUSE, GLASS CYLINDRICAL(DIA.5) (6.3A 125V)(XGR6)	
⚠T951	1-433-606-11	TRANSFORMER, POWER (XGR60)	
⚠T951	1-435-797-11	TRANSFORMER, POWER (XGR6)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-872-09	SCREW +BVTT 3X8 (S)	
#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
#5	7-685-881-09	SCREW +BVTT 4X8 (S)	

7-5. CD MECHANISM DECK SECTION (CDM-30BD60C)



Ref. No.	Part No.	Description	Remarks
501	4-987-976-01	SCREW, STEP	
502	4-944-490-01	BELT (TIMING)	
503	A-4660-978-A	GEAR (PULLEY) ASSY	
504	4-978-421-01	GEAR (MID)	
505	4-978-425-01	ROLLER (CAM)	
506	4-978-420-01	CAM (HOLDER)	
507	4-237-981-01	PULLEY (B) (30), CHUCKING	
508	X-4953-307-1	PULLEY (A) ASSY, CHUCKING	
509	4-238-261-01	TABLE, DISK	
510	X-4947-960-1	ROLLER ASSY	
* 511	4-978-583-01	BRACKET (BU)	
512	4-238-260-01	CHASSIS	
* 513	A-4673-765-A	MOTOR BOARD, COMPLETE	
514	4-978-426-01	INDICATOR (NO.)	
515	1-659-059-13	LED BOARD	
516	1-659-058-13	SENSOR BOARD	
517	4-228-414-01	BRACKET (YOKE)	
518	4-951-620-01	SCREW (2.6X8), +BVTP	
519	4-231-151-01	STOPPER (BU)	
520	4-231-451-11	INSULATOR (BU-30)	
521	4-227-045-11	SPRING (INSULATOR), COIL	
522	4-227-899-01	SCREW (DIA. 12), FROATING	
523	4-998-716-01	SCREW, BU FITTING	
524	X-4954-451-1	HOLDER (BU30) ASSY	
M201	A-4660-977-A	MOTOR ASSY	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	

7-6. BASE UNIT SECTION (BU-30BD60C)



Ref. No.	Part No.	Description	Remarks
551	3-531-576-11	RIVET	
552	A-4728-678-A	BD BOARD, COMPLETE	
553	4-233-832-01	GEAR (LB)	
554	4-233-831-01	GEAR (LA)	
555	1-757-710-11	WIRE (FLAT TYPE) (16 CORE)	
556	A-4735-188-A	BU-30 (60) ASSY	

BD

SECTION 8
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: μF
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: μH
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA... , uPA... , μPA... ,
  uPB... , μPB... , uPC... , μPC... ,
  uPD..., μPD...
- Abbreviation
  MX : Mexican model
  E51 : Chilean and Peruvian model
  AR : Argentina model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description			Remarks
	A-4728-678-A	BD BOARD, COMPLETE			
		*****************			
		< CAPACITOR >			
C101	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C102	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C103	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C104	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C108	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C109	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C110	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C111	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C112	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C114	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C116	1-104-665-11	ELECT	100uF	20%	10V
C117	1-104-665-11	ELECT	100uF	20%	10V
C118	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C121	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C122	1-124-584-00	ELECT	100uF	20%	10V
C123	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C124	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C125	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C126	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C127	1-124-584-00	ELECT	100uF	20%	10V
C129	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C130	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C131	1-104-665-11	ELECT	100uF	20%	10V
C133	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C143	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C145	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C153	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C159	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C162	1-104-665-11	ELECT	100uF	20%	10V
C165	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C167	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C168	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C171	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C172	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C181	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C182	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C183	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C184	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C185	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C190	1-115-156-11	CERAMIC CHIP	1uF		10V
C191	1-124-584-00	ELECT	100uF	20%	10V
C192	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C193	1-104-665-11	ELECT	100uF	20%	10V
C194	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C195	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C196	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C197	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C198	1-124-584-00	ELECT	100uF	20%	10V
		< CONNECTOR >			
CN101	1-568-864-11	CONNECTOR, FFC 21P			
CN102	1-793-907-11	CONNECTOR, FFC/FPC 16P			
		< DIODE >			
D101	8-719-083-58	DIODE UDZSTE-173.9B			
		< FERRITE BEAD >			
FB101	1-500-445-21	FERRITE	0UH		
FB102	1-500-445-21	FERRITE	0UH		
		< IC >			
IC101	8-752-402-31	IC CXD3017Q			
IC102	8-759-827-41	IC BA5974FM-E2			
IC103	8-752-089-74	IC CXA2581N-T4			
		< JUMPER RESISTOR >			
JR101	1-216-864-11	METAL CHIP	0	5%	1/16W
JR102	1-216-864-11	METAL CHIP	0	5%	1/16W
JR103	1-216-864-11	METAL CHIP	0	5%	1/16W
JR104	1-216-864-11	METAL CHIP	0	5%	1/16W
JR105	1-216-864-11	METAL CHIP	0	5%	1/16W
JR106	1-216-864-11	METAL CHIP	0	5%	1/16W
JR122	1-216-296-11	SHORT	0		
JR123	1-216-296-11	SHORT	0		
JR124	1-216-296-11	SHORT	0		
JR125	1-216-296-11	SHORT	0		
		< COIL >			
L101	1-469-553-21	INDUCTOR	4.7uH		
		< TRANSISTOR >			
Q101	8-729-049-31	TRANSISTOR 2SB710A-RTX			
Q102	8-729-920-85	TRANSISTOR 2SD1664-T100-QR			
		< RESISTOR >			
R101	1-216-821-11	METAL CHIP	1K	5%	1/16W

BD | **CD-L** | **CD-R** | **D-SW** | **FRONT INPUT**

Ref. No.	Part No.	Description			Remarks	
R102	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R103	1-216-835-11	METAL CHIP	15K	5%	1/16W	
R104	1-216-839-11	METAL CHIP	33K	5%	1/16W	
R105	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R106	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R107	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R108	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	
R109	1-216-857-11	METAL CHIP	1M	5%	1/16W	
R111	1-216-846-11	METAL CHIP	120K	5%	1/16W	
R114	1-218-745-11	RES-CHIP	160K	5%	1/10W	
R116	1-216-001-00	METAL CHIP	10	5%	1/10W	
R117	1-216-821-11	METAL CHIP	1K	5%	1/16W	
R118	1-216-809-11	METAL CHIP	100	5%	1/16W	
R119	1-216-826-11	METAL CHIP	2.7K	5%	1/16W	
R120	1-216-835-11	METAL CHIP	15K	5%	1/16W	
R122	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R123	1-216-833-11	METAL CHIP	10K	5%	1/16W	
R124	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R131	1-216-813-11	METAL CHIP	220	5%	1/16W	
R143	1-216-839-11	METAL CHIP	33K	5%	1/16W	
R144	1-216-839-11	METAL CHIP	33K	5%	1/16W	
R147	1-218-701-11	RES-CHIP	2.4K	5%	1/10W	
R148	1-216-797-11	METAL CHIP	10	5%	1/16W	
R149	1-216-797-11	METAL CHIP	10	5%	1/16W	
R158	1-216-838-11	METAL CHIP	27K	5%	1/16W	
R159	1-216-838-11	METAL CHIP	27K	5%	1/16W	
R162	1-216-845-11	METAL CHIP	100K	5%	1/16W	
R171	1-216-837-11	METAL CHIP	22K	5%	1/16W	
R172	1-216-837-11	METAL CHIP	22K	5%	1/16W	
R173	1-216-837-11	METAL CHIP	22K	5%	1/16W	
R181	1-216-837-11	METAL CHIP	22K	5%	1/16W	
R182	1-216-837-11	METAL CHIP	22K	5%	1/16W	
R183	1-216-837-11	METAL CHIP	22K	5%	1/16W	
R190	1-216-813-11	METAL CHIP	220	5%	1/16W	
R191	1-216-839-11	METAL CHIP	33K	5%	1/16W	
R192	1-216-839-11	METAL CHIP	33K	5%	1/16W	
R193	1-216-846-11	METAL CHIP	120K	5%	1/16W	
R194	1-216-839-11	METAL CHIP	33K	5%	1/16W	
R195	1-216-849-11	METAL CHIP	220K	5%	1/16W	
R196	1-216-819-11	METAL CHIP	680	5%	1/16W	
R198	1-216-864-11	METAL CHIP	0	5%	1/16W	
		< NETWORK >				
RN101	1-233-576-11	RES, CHIP NETWORK 100				
		< VARIABLE RESISTOR >				
RV101	1-238-602-11	RES, ADJ, CARBON 47K (E-F BALANCE)				
		< VIBRATOR >				
X101	1-579-280-11	VIBRATOR, CRYSTAL (16.9344MHz)				

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Ref. No.	Part No.	Description			Remarks	
	1-683-452-11	CD-L BOARD *********				
		< CONNECTOR >				
* CN704	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P				
		< RESISTOR >				
R771	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R772	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R773	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R774	1-247-843-11	CARBON	3.3K	5%	1/4W	
R775	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R776	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R777	1-249-429-11	CARBON	10K	5%	1/4W	
R778	1-249-431-11	CARBON	15K	5%	1/4W	
		< SWITCH >				
S741	1-762-875-21	SWITCH, KEYBOARD (DISC 1)				
S742	1-762-875-21	SWITCH, KEYBOARD (DISC 2)				
S743	1-762-875-21	SWITCH, KEYBOARD (DISC 3)				
S744	1-762-875-21	SWITCH, KEYBOARD (DISC 4)				
S745	1-762-875-21	SWITCH, KEYBOARD (DISC 5)				
S746	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP)				
S747	1-762-875-21	SWITCH, KEYBOARD (REPEAT)				
S748	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE)				
S749	1-762-875-21	SWITCH, KEYBOARD (EDIT)				

****

Ref. No.	Part No.	Description			Remarks	
	1-683-453-11	CD-R BOARD **********				
		< CAPACITOR >				
C751	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C752	1-162-306-11	CERAMIC	0.01uF	30%	16V	
		< CONNECTOR >				
CN703	1-785-333-11	PIN, CONNECTOR (LIGHT ANGLE)7P				
		< DIODE >				
D700	8-719-056-13	DIODE SML79423C-TP15 (▷❚❚)				
		< RESISTOR >				
R782	1-247-843-11	CARBON	3.3K	5%	1/4W	
R783	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R784	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R790	1-247-791-91	CARBON	22	5%	1/4W	
R791	1-247-791-91	CARBON	22	5%	1/4W	
		< SWITCH >				
S752	1-762-875-21	SWITCH, KEYBOARD (▷❚❚)				
S753	1-762-875-21	SWITCH, KEYBOARD (■)				
S754	1-762-875-21	SWITCH, KEYBOARD (◀◀)				
S755	1-762-875-21	SWITCH, KEYBOARD (▶▶)				
S763	1-473-393-11	ENCODER, ROTARY (⏮ AMS ⏭)				

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Ref. No.	Part No.	Description			Remarks	
	1-684-683-11	D-SW BOARD **********				
		< CAPACITOR >				
C741	1-162-306-11	CERAMIC	0.01uF	30%	16V	
		< SWITCH >				
S740	1-762-587-11	SWITCH, PUSH (1 KEY) (DOOR)				

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Ref. No.	Part No.	Description			Remarks	
	1-683-454-11	FRONT INPUT BOARD ****************				
		< CAPACITOR >				
C701	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C702	1-162-294-31	CERAMIC	0.001uF	10%	50V	

Ref. No.	Part No.	Description			Remarks
C703	1-126-960-11	ELECT	1uF	20%	50V
C704	1-164-159-21	CERAMIC	0.1uF		50V
C705	1-162-282-31	CERAMIC	100PF	10%	50V
		< FILTER >			
FL730	1-424-228-11	FILTER, NOISE			
		< JACK >			
J804	1-815-310-11	JACK 3P (GAME INPUT)			
		< RESISTOR >			
R721	1-249-437-11	CARBON	47K	5%	1/4W
R722	1-249-417-11	CARBON	1K	5%	1/4W F
R723	1-249-437-11	CARBON	47K	5%	1/4W
R724	1-247-804-11	CARBON	75	5%	1/4W
R725	1-249-417-11	CARBON	1K	5%	1/4W F
**					
	1-683-450-11	HEADPHONE BOARD			
		***************			
		< CAPACITOR >			
C891	1-162-294-31	CERAMIC	0.001uF	10%	50V
C892	1-162-294-31	CERAMIC	0.001uF	10%	50V
C893	1-164-159-21	CERAMIC	0.1uF		50V
		< JACK >			
J891	1-770-226-11	JACK (LARGE TYPE) (PHONES)			
		< RESISTOR >			
R891	1-247-807-31	CARBON	100	5%	1/4W
**					
*	1-659-059-13	LED BOARD			
		*********			
		< DIODE >			
D201	8-719-032-98	DIODE SEL5820A (DISC No.)			
		< TRANSISTOR >			
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE			
		< RESISTOR >			
R201	1-249-433-11	CARBON	22K	5%	1/4W
R202	1-249-411-11	CARBON	330	5%	1/4W
R203	1-249-437-11	CARBON	47K	5%	1/4W
**					
	A-4440-764-A	MAIN BOARD, COMPLETE (XGR60:AR,E,E51)			
	A-4676-330-A	MAIN BOARD, COMPLETE (XGR60:MX)			
	A-4727-645-A	MAIN BOARD, COMPLETE (XGR6)			
		*******************			
	4-875-327-31	HEAT SINK			
	4-948-236-21	CUSHION (107)			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
		< CAPACITOR >			
C72	1-136-169-00	FILM	0.22uF	5%	50V
C73	1-136-169-00	FILM	0.22uF	5%	50V
C110	1-126-795-11	ELECT	10uF	20%	50V
C111	1-126-795-11	ELECT	10uF	20%	50V
C112	1-126-795-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remarks
C113	1-126-795-11	ELECT	10uF	20%	50V
C114	1-126-795-11	ELECT	10uF	20%	50V
C115	1-126-795-11	ELECT	10uF	20%	50V
C116	1-130-487-00	MYLAR	0.022uF	5%	50V
C117	1-130-487-00	MYLAR	0.022uF	5%	50V
C118	1-126-795-11	ELECT	10uF	20%	50V
C119	1-130-491-00	MYLAR	0.047uF	5%	50V
C120	1-130-479-00	MYLAR	0.0047uF	5%	50V
C121	1-126-795-11	ELECT	10uF	20%	50V
C122	1-136-171-00	FILM	0.33uF	5%	50V
C123	1-136-171-00	FILM	0.33uF	5%	50V
C124	1-126-961-11	ELECT	2.2uF	20%	50V
C131	1-126-795-11	ELECT	10uF	20%	50V
C132	1-125-972-91	ELECT	100uF	20%	16V
C133	1-126-795-11	ELECT	10uF	20%	50V
C134	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C135	1-124-589-11	ELECT	47uF	20%	16V
C136	1-126-964-11	ELECT	10uF	20%	50V
C137	1-162-967-11	CERAMIC CHIP	3300pF	10%	50V
C138	1-162-967-11	CERAMIC CHIP	3300pF	10%	50V
C160	1-126-795-11	ELECT	10uF	20%	50V
C161	1-126-795-11	ELECT	10uF	20%	50V
C162	1-126-795-11	ELECT	10uF	20%	50V
C163	1-126-795-11	ELECT	10uF	20%	50V
C164	1-126-795-11	ELECT	10uF	20%	50V
C165	1-126-795-11	ELECT	10uF	20%	50V
C166	1-130-487-00	MYLAR	0.022uF	5%	50V
C167	1-130-487-00	MYLAR	0.022uF	5%	50V
C168	1-126-795-11	ELECT	10uF	20%	50V
C169	1-130-491-00	MYLAR	0.047uF	5%	50V
C170	1-130-479-00	MYLAR	0.0047uF	5%	50V
C171	1-126-795-11	ELECT	10uF	20%	50V
C172	1-136-171-00	FILM	0.33uF	5%	50V
C173	1-136-171-00	FILM	0.33uF	5%	50V
C174	1-126-961-11	ELECT	2.2uF	20%	50V
C181	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C182	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C183	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C193	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C301	1-130-483-00	MYLAR	0.01uF	5%	50V
C302	1-126-964-11	ELECT	10uF	20%	50V
C303	1-136-165-00	FILM	0.1uF	5%	50V
C304	1-126-964-11	ELECT	10uF	20%	50V
C305	1-136-165-00	FILM	0.1uF	5%	50V
C306	1-126-961-11	ELECT	2.2uF	20%	50V
C307	1-126-947-11	ELECT	47uF	20%	16V
C308	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C309	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C310	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C311	1-126-933-11	ELECT	100uF	20%	16V
C312	1-126-964-11	ELECT	10uF	20%	50V
C313	1-126-964-11	ELECT	10uF	20%	50V
C321	1-126-964-11	ELECT	10uF	20%	50V
C322	1-135-575-11	MYLAR	120PF	5%	50V
C323	1-135-575-11	MYLAR	120PF	5%	50V
C324	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C325	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C326	1-162-946-11	CERAMIC CHIP	27PF	5%	50V
C327	1-162-946-11	CERAMIC CHIP	27PF	5%	50V
C328	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C329	1-162-974-11	CERAMIC CHIP	0.01uF		50V

MAIN

Ref. No.	Part No.	Description			Remarks
C331	1-137-150-11	MYLAR	0.01uF	5%	100V
C332	1-126-961-11	ELECT	2.2uF	20%	50V
C333	1-130-485-00	MYLAR	0.015uF	5%	50V
C334	1-130-481-00	MYLAR	0.0068uF	5%	50V
C335	1-130-481-00	MYLAR	0.0068uF	5%	50V
C336	1-130-486-00	MYLAR	0.018uF	10%	50V
C337	1-126-964-11	ELECT	10uF	20%	50V
C338	1-126-947-11	ELECT	47uF	20%	16V
C341	1-126-935-11	ELECT	470uF	20%	10V
C342	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C343	1-130-487-00	MYLAR	0.022uF	5%	50V
C344	1-130-487-00	MYLAR	0.022uF	5%	50V
C345	1-126-961-11	ELECT	2.2uF	20%	50V
C346	1-126-961-11	ELECT	2.2uF	20%	50V
C347	1-126-964-11	ELECT	10uF	20%	50V
C348	1-126-965-11	ELECT	22uF	20%	50V
C349	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C350	1-137-198-11	FILM	1uF	5%	50V
C351	1-130-483-00	MYLAR	0.01uF	5%	50V
C352	1-126-964-11	ELECT	10uF	20%	50V
C353	1-136-165-00	FILM	0.1uF	5%	50V
C354	1-126-964-11	ELECT	10uF	20%	50V
C355	1-136-165-00	FILM	0.1uF	5%	50V
C356	1-126-961-11	ELECT	2.2uF	20%	50V
C357	1-126-947-11	ELECT	47uF	20%	16V
C358	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C359	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C381	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C382	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C401	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C402	1-126-916-11	ELECT	1000uF	20%	6.3V
C403	1-126-961-11	ELECT	2.2uF	20%	50V
C404	1-126-961-11	ELECT	2.2uF	20%	50V
C405	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C406	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C407	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C408	1-126-916-11	ELECT	1000uF	20%	6.3V
C410	1-126-935-11	ELECT	470uF	20%	10V
C414	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C431	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C452	1-126-947-11	ELECT	47uF	20%	16V
C510	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C511	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C512	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C516	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C562	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C563	1-126-947-11	ELECT	47uF	20%	16V
C598	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C599	1-126-947-11	ELECT	47uF	20%	16V
C601	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C602	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C603	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C604	1-126-961-11	ELECT	2.2uF	20%	50V (XGR60)
C604	1-126-963-11	ELECT	4.7uF	20%	50V (XGR6)
C605	1-130-479-00	MYLAR	0.0047uF	5%	50V
C606	1-130-473-00	MYLAR	0.0015uF	5%	50V
C607	1-136-159-00	FILM	0.033uF	5%	50V (XGR60)
C607	1-136-165-00	FILM	0.1uF	5%	50V (XGR6)
C608	1-126-964-11	ELECT	10uF	20%	50V
C609	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C610	1-126-933-11	ELECT	100uF	20%	16V
C611	1-126-947-11	ELECT	47uF	20%	16V
C612	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C613	1-126-947-11	ELECT	47uF	20%	16V
C651	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C652	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C653	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C654	1-126-961-11	ELECT	2.2uF	20%	50V (XGR60)
C654	1-126-963-11	ELECT	4.7uF	20%	50V (XGR6)
C655	1-130-479-00	MYLAR	0.0047uF	5%	50V
C656	1-130-473-00	MYLAR	0.0015uF	5%	50V
C657	1-136-159-00	FILM	0.033uF	5%	50V (XGR60)
C657	1-136-165-00	FILM	0.1uF	5%	50V (XGR6)
C658	1-126-964-11	ELECT	10uF	20%	50V
C701	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C702	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C703	1-126-964-11	ELECT	10uF	20%	50V
C704	1-126-964-11	ELECT	10uF	20%	50V
C705	1-162-960-11	CERAMIC CHIP	220PF	10%	50V (XGR6,XGR60:MX)
C722	1-126-926-11	ELECT	1000uF	20%	10V
C724	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C751	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C752	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C753	1-126-964-11	ELECT	10uF	20%	50V
C754	1-126-964-11	ELECT	10uF	20%	50V
C755	1-162-960-11	CERAMIC CHIP	220PF	10%	50V (XGR6,XGR60:MX)
C771	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C772	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C774	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C801	1-126-964-11	ELECT	10uF	20%	50V
C802	1-136-165-00	FILM	0.1uF	5%	50V
C803	1-136-165-00	FILM	0.1uF	5%	50V
C804	1-126-916-11	ELECT	1000uF	20%	6.3V
C806	1-109-953-11	ELECT	2.2uF	20%	50V
C901	1-128-548-11	ELECT	4700uF	20%	25V
C902	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C903	1-126-935-11	ELECT	470uF	20%	16V
C911	1-104-665-11	ELECT	100uF	20%	25V
C912	1-126-935-11	ELECT	470uF	20%	10V
C913	1-126-947-11	ELECT	47uF	20%	16V
C921	1-126-768-11	ELECT	2200uF	20%	16V
C922	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C923	1-126-916-11	ELECT	1000uF	20%	6.3V
C924	1-126-947-11	ELECT	47uF	20%	16V
C925	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C926	1-126-935-11	ELECT	470uF	20%	6.3V
C961	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C962	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C963	1-126-947-11	ELECT	47uF	20%	16V
		< CONNECTOR >			
* CN301	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P			
CN311	1-691-765-11	PLUG (MICRO CONNECTOR) 3P			
CN321	1-691-770-11	PLUG (MICRO CONNECTOR) 8P			

Ref. No.	Part No.	Description	Remarks
CN371	1-784-776-11	CONNECTOR, FFC 15P	
CN401	1-568-838-11	CONNECTOR, FFC 21P	
CN411	1-785-321-11	PIN, CONNECTOR (STRAIGHT) 9P	
CN431	1-784-780-11	CONNECTOR, FFC 19P	
CN441	1-563-614-31	CONNECTOR, FLEXIBLE 11P	
CN722	1-691-767-11	PLUG (MICRO CONNECTOR) 5P	
CN901	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P	
CN902	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P	
CN903	1-785-315-11	PIN, CONNECTOR (STRAIGHT) 3P	
CN961	1-564-506-11	PLUG, CONNECTOR 3P	
		< DIODE >	
D381	8-719-988-61	DIODE 1SS355TE-17	
D382	8-719-988-61	DIODE 1SS355TE-17	
D431	8-719-988-61	DIODE 1SS355TE-17	
D802	8-719-988-61	DIODE 1SS355TE-17	
D803	8-719-988-61	DIODE 1SS355TE-17	
D805	8-719-988-61	DIODE 1SS355TE-17	
D806	8-719-988-61	DIODE 1SS355TE-17	
D807	8-719-988-61	DIODE 1SS355TE-17	
D808	8-719-988-61	DIODE 1SS355TE-17	
D809	8-719-210-33	DIODE EC10DS2	
D810	8-719-210-33	DIODE EC10DS2	
D911	8-719-210-33	DIODE EC10DS2	
D912	8-719-210-33	DIODE EC10DS2	
D913	8-719-210-33	DIODE EC10DS2	
		< FERRITE BEAD >	
FB402	1-414-772-11	FERRITE 0UH	
FB403	1-414-772-11	FERRITE 0UH	
FB404	1-414-772-11	FERRITE 0UH	
FB516	1-414-772-11	FERRITE 0UH	
FB562	1-414-772-11	FERRITE 0UH	
FB599	1-414-772-11	FERRITE 0UH	
		< IC >	
IC111	6-701-686-01	IC M61519FPD60G	
IC181	8-759-009-06	IC MC14052BFEL	
IC301	6-701-655-01	IC HA12236F	
IC321	8-759-143-54	IC uPC1330HA	
IC341	8-759-100-96	IC NJM4558M-TE2	
IC451	8-749-019-25	IC TOTX141 (CD DIGITAL OUT OPTICAL)	
IC501	6-801-051-01	IC M30620MCN-A01FP	
IC601	8-759-100-96	IC NJM4558M-TE2	
IC801	8-759-533-04	IC M62703ML-E1	
IC911	8-759-231-09	IC TA8662N	
IC921	8-759-039-69	IC uPC7805AHF	
IC922	6-701-760-01	IC uPC3504AHF	
IC931	8-759-604-32	IC M5F7810L	
IC961	8-759-088-08	IC uPC7812AHF	
		< JACK >	
J701	1-691-887-11	JACK, PIN 6P (PHONO IN, MD IN/OUT)	
J702	1-573-028-31	JACK, PIN 4P (DJ MIX) (XGR6,XGR60:MX)	
J721	1-774-227-11	JACK, PIN 1P (VIDEO OUT)	
		< JUMPER RESISTOR >	
JR1	1-216-295-00	SHORT 0	
JR2	1-216-295-00	SHORT 0	
JR3	1-216-295-00	SHORT 0	
JR4	1-216-295-00	SHORT 0	

Ref. No.	Part No.	Description	Remarks
JR5	1-216-295-00	SHORT 0	
JR6	1-216-295-00	SHORT 0	
JR7	1-216-295-00	SHORT 0	
JR12	1-216-295-00	SHORT 0	
JR13	1-216-296-11	SHORT 0	
JR14	1-216-296-11	SHORT 0	
JR15	1-216-295-00	SHORT 0	
JR16	1-216-295-00	SHORT 0	
JR17	1-216-295-00	SHORT 0	
JR18	1-216-295-00	SHORT 0	
JR19	1-216-296-11	SHORT 0	
JR20	1-216-295-00	SHORT 0	
JR21	1-216-295-00	SHORT 0	
JR22	1-216-295-00	SHORT 0	
JR23	1-216-295-00	SHORT 0	
JR27	1-216-295-00	SHORT 0	
JR28	1-216-296-11	SHORT 0	
JR29	1-216-295-00	SHORT 0	
JR181	1-216-295-00	SHORT 0	
JR182	1-216-295-00	SHORT 0	
JR191	1-216-295-00	SHORT 0	
JR192	1-216-295-00	SHORT 0	
JR301	1-216-295-00	SHORT 0	
JR303	1-216-295-00	SHORT 0	
JR351	1-216-295-00	SHORT 0	
JR353	1-216-295-00	SHORT 0	
JR721	1-216-295-00	SHORT 0	
JR722	1-216-295-00	SHORT 0	
JR723	1-216-295-00	SHORT 0	
JR910	1-216-296-11	SHORT 0 (XGR6)	
		< COIL >	
L301	1-412-032-11	INDUCTOR CHIP 100uH	
L321	1-410-780-11	INDUCTOR 27mH	
L322	1-410-780-11	INDUCTOR 27mH	
L331	1-412-033-11	INDUCTOR CHIP 220uH	
L451	1-412-032-11	INDUCTOR CHIP 100uH	
		< TRANSISTOR >	
Q111	8-729-048-96	TRANSISTOR 2SK1825	
Q112	8-729-048-96	TRANSISTOR 2SK1825	
Q113	8-729-048-96	TRANSISTOR 2SK1825	
Q114	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q115	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q116	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q161	8-729-048-96	TRANSISTOR 2SK1825	
Q162	8-729-048-96	TRANSISTOR 2SK1825	
Q163	8-729-048-96	TRANSISTOR 2SK1825	
Q164	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q165	8-729-029-40	TRANSISTOR DTA124ESA	
Q166	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q167	8-729-029-40	TRANSISTOR DTA124ESA	
Q168	8-729-029-86	TRANSISTOR DTC124ESA	
Q169	8-729-029-40	TRANSISTOR DTA124ESA	
Q170	8-729-029-86	TRANSISTOR DTC124ESA	
Q181	8-729-029-86	TRANSISTOR DTC124ESA	
Q182	8-729-029-86	TRANSISTOR DTC124ESA	
Q321	8-729-029-86	TRANSISTOR DTC124ESA	
Q322	8-729-029-40	TRANSISTOR DTA124ESA	
Q331	8-729-113-07	TRANSISTOR 2SC2001TP-K	
Q332	8-729-113-07	TRANSISTOR 2SC2001TP-K	

MAIN

Ref. No.	Part No.	Description			Remarks
Q333	8-729-801-93	TRANSISTOR	2SD1387		
Q334	8-729-029-86	TRANSISTOR	DTC124ESA		
Q335	8-729-140-04	TRANSISTOR	2SB1116A-L		
Q341	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q342	8-729-029-86	TRANSISTOR	DTC124ESA		
Q343	8-729-029-86	TRANSISTOR	DTC124ESA		
Q344	8-729-029-86	TRANSISTOR	DTC124ESA		
Q345	8-729-029-86	TRANSISTOR	DTC124ESA		
Q381	8-729-140-04	TRANSISTOR	2SB1116A-L		
Q382	8-729-029-86	TRANSISTOR	DTC124ESA		
Q383	8-729-140-04	TRANSISTOR	2SB1116A-L		
Q384	8-729-029-86	TRANSISTOR	DTC124ESA		
Q385	8-729-116-59	TRANSISTOR	2SB1068TP		
Q386	8-729-029-86	TRANSISTOR	DTC124ESA		
Q387	8-729-029-86	TRANSISTOR	DTC124ESA		
Q388	8-729-048-96	TRANSISTOR	2SK1825		
Q401	8-729-141-30	TRANSISTOR	2SC3623A-LK		
Q402	8-729-141-30	TRANSISTOR	2SC3623A-LK		
Q411	8-729-029-86	TRANSISTOR	DTC124ESA		
Q412	8-729-029-86	TRANSISTOR	DTC124ESA		
Q451	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q452	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q453	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q454	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q611	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q701	8-729-141-30	TRANSISTOR	2SC3623A-LK		
Q751	8-729-141-30	TRANSISTOR	2SC3623A-LK		
Q801	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q802	8-729-029-86	TRANSISTOR	DTC124ESA		
Q803	8-729-029-40	TRANSISTOR	DTA124ESA		
Q805	8-729-029-40	TRANSISTOR	DTA124ESA		
Q806	8-729-029-86	TRANSISTOR	DTC124ESA		
Q921	8-729-209-60	TRANSISTOR	2SB1375		
Q922	8-729-029-86	TRANSISTOR	DTC124ESA		
Q961	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q962	8-729-140-04	TRANSISTOR	2SB1116A-L		
		< RESISTOR >			
R111	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R112	1-216-833-11	METAL CHIP	10K	5%	1/16W
R113	1-216-857-11	METAL CHIP	1M	5%	1/16W
R114	1-216-857-11	METAL CHIP	1M	5%	1/16W
R115	1-216-841-11	METAL CHIP	47K	5%	1/16W
R116	1-216-841-11	METAL CHIP	47K	5%	1/16W
R117	1-216-849-11	METAL CHIP	220K	5%	1/16W
R118	1-216-849-11	METAL CHIP	220K	5%	1/16W
R119	1-216-818-11	METAL CHIP	560	5%	1/16W
R120	1-216-845-11	METAL CHIP	100K	5%	1/16W
R121	1-216-855-11	METAL CHIP	680K	5%	1/16W
R122	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R123	1-216-845-11	METAL CHIP	100K	5%	1/16W
R124	1-216-833-11	METAL CHIP	10K	5%	1/16W
R125	1-216-833-11	METAL CHIP	10K	5%	1/16W
R126	1-216-833-11	METAL CHIP	10K	5%	1/16W
R127	1-216-849-11	METAL CHIP	220K	5%	1/16W
R128	1-216-849-11	METAL CHIP	220K	5%	1/16W
R129	1-216-857-11	METAL CHIP	1M	5%	1/16W
R130	1-216-857-11	METAL CHIP	1M	5%	1/16W
R131	1-216-833-11	METAL CHIP	10K	5%	1/16W
R132	1-216-833-11	METAL CHIP	10K	5%	1/16W
R133	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R134	1-216-857-11	METAL CHIP	1M	5%	1/16W
R135	1-216-295-00	SHORT	0		
R136	1-216-295-00	SHORT	0		
R137	1-216-845-11	METAL CHIP	100K	5%	1/16W
R138	1-216-845-11	METAL CHIP	100K	5%	1/16W
R161	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R162	1-216-833-11	METAL CHIP	10K	5%	1/16W
R163	1-216-857-11	METAL CHIP	1M	5%	1/16W
R164	1-216-857-11	METAL CHIP	1M	5%	1/16W
R165	1-216-841-11	METAL CHIP	47K	5%	1/16W
R166	1-216-841-11	METAL CHIP	47K	5%	1/16W
R167	1-216-849-11	METAL CHIP	220K	5%	1/16W
R168	1-216-849-11	METAL CHIP	220K	5%	1/16W
R169	1-216-818-11	METAL CHIP	560	5%	1/16W
R170	1-216-845-11	METAL CHIP	100K	5%	1/16W
R171	1-216-855-11	METAL CHIP	680K	5%	1/16W
R172	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R173	1-216-845-11	METAL CHIP	100K	5%	1/16W
R174	1-216-833-11	METAL CHIP	10K	5%	1/16W
R175	1-216-841-11	METAL CHIP	47K	5%	1/16W
R176	1-216-081-00	METAL CHIP	22K	5%	1/10W
R177	1-216-841-11	METAL CHIP	47K	5%	1/16W
R178	1-216-841-11	METAL CHIP	47K	5%	1/16W
R179	1-216-833-11	METAL CHIP	10K	5%	1/16W
R180	1-216-833-11	METAL CHIP	10K	5%	1/16W
R181	1-216-833-11	METAL CHIP	10K	5%	1/16W
R182	1-216-833-11	METAL CHIP	10K	5%	1/16W
R301	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R302	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R303	1-216-833-11	METAL CHIP	10K	5%	1/16W
R304	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R305	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R308	1-216-081-00	METAL CHIP	22K	5%	1/10W
R309	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R310	1-216-833-11	METAL CHIP	10K	5%	1/16W
R311	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R318	1-216-833-11	METAL CHIP	10K	5%	1/16W
R319	1-216-845-11	METAL CHIP	100K	5%	1/16W
R320	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R321	1-216-833-11	METAL CHIP	10K	5%	1/16W
R324	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R325	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R326	1-216-833-11	METAL CHIP	10K	5%	1/16W
R327	1-216-833-11	METAL CHIP	10K	5%	1/16W
R328	1-216-834-11	METAL CHIP	12K	5%	1/16W
R329	1-216-834-11	METAL CHIP	12K	5%	1/16W
R330	1-216-081-00	METAL CHIP	22K	5%	1/10W
⚠R331	1-219-787-17	FUSIBLE	5.6	5%	1/4W
⚠R332	1-219-787-17	FUSIBLE	5.6	5%	1/4W
R333	1-216-836-11	METAL CHIP	18K	5%	1/16W
R334	1-216-836-11	METAL CHIP	18K	5%	1/16W
R335	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R336	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R337	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R338	1-216-081-00	METAL CHIP	22K	5%	1/10W
R339	1-216-833-11	METAL CHIP	10K	5%	1/16W
R340	1-216-833-11	METAL CHIP	10K	5%	1/16W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

MAIN

Ref. No.	Part No.	Description			Remarks
R341	1-216-821-11	METAL CHIP	1K	5%	1/16W
R342	1-216-821-11	METAL CHIP	1K	5%	1/16W
R343	1-216-841-11	METAL CHIP	47K	5%	1/16W
R344	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R345	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R346	1-216-833-11	METAL CHIP	10K	5%	1/16W
R347	1-216-833-11	METAL CHIP	10K	5%	1/16W
R348	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R349	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R350	1-216-833-11	METAL CHIP	10K	5%	1/16W
R351	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R352	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R353	1-216-833-11	METAL CHIP	10K	5%	1/16W
R354	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R355	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R358	1-216-833-11	METAL CHIP	10K	5%	1/16W
R371	1-216-833-11	METAL CHIP	10K	5%	1/16W
R372	1-216-833-11	METAL CHIP	10K	5%	1/16W
R374	1-216-833-11	METAL CHIP	10K	5%	1/16W
R375	1-216-833-11	METAL CHIP	10K	5%	1/16W
R377	1-216-833-11	METAL CHIP	10K	5%	1/16W
R378	1-216-833-11	METAL CHIP	10K	5%	1/16W
R381	1-216-819-11	METAL CHIP	680	5%	1/16W
R382	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R383	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R384	1-216-819-11	METAL CHIP	680	5%	1/16W
R385	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R386	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R387	1-216-841-11	METAL CHIP	47K	5%	1/16W
R388	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R389	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R390	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R391	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R392	1-216-826-11	METAL CHIP	2.7K	5%	1/16W
R393	1-216-833-11	METAL CHIP	10K	5%	1/16W
R394	1-216-849-11	METAL CHIP	220K	5%	1/16W
R401	1-216-809-11	METAL CHIP	100	5%	1/16W
R402	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R403	1-216-809-11	METAL CHIP	100	5%	1/16W
R404	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R405	1-216-833-11	METAL CHIP	10K	5%	1/16W
R406	1-216-833-11	METAL CHIP	10K	5%	1/16W
R407	1-216-295-00	SHORT	0		
R408	1-216-295-00	SHORT	0		
R410	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R412	1-216-835-11	METAL CHIP	15K	5%	1/16W
R413	1-216-833-11	METAL CHIP	10K	5%	1/16W
R414	1-216-833-11	METAL CHIP	10K	5%	1/16W
R431	1-216-845-11	METAL CHIP	100K	5%	1/16W
R451	1-216-833-11	METAL CHIP	10K	5%	1/16W
R452	1-216-833-11	METAL CHIP	10K	5%	1/16W
R453	1-216-833-11	METAL CHIP	10K	5%	1/16W
R454	1-216-833-11	METAL CHIP	10K	5%	1/16W
R501	1-216-833-11	METAL CHIP	10K	5%	1/16W
R502	1-216-809-11	METAL CHIP	100	5%	1/16W
R503	1-216-809-11	METAL CHIP	100	5%	1/16W
R504	1-216-809-11	METAL CHIP	100	5%	1/16W
R505	1-216-833-11	METAL CHIP	10K	5%	1/16W
R509	1-216-833-11	METAL CHIP	10K	5%	1/16W
R511	1-216-851-11	METAL CHIP	330K	5%	1/16W
R513	1-216-295-00	SHORT	0		

Ref. No.	Part No.	Description			Remarks
R516	1-216-833-11	METAL CHIP	10K	5%	1/16W
R517	1-216-833-11	METAL CHIP	10K	5%	1/16W
R519	1-216-809-11	METAL CHIP	100	5%	1/16W
R521	1-216-809-11	METAL CHIP	100	5%	1/16W
R522	1-216-809-11	METAL CHIP	100	5%	1/16W
R523	1-216-809-11	METAL CHIP	100	5%	1/16W
R524	1-216-809-11	METAL CHIP	100	5%	1/16W
R525	1-216-809-11	METAL CHIP	100	5%	1/16W
R526	1-216-809-11	METAL CHIP	100	5%	1/16W
R527	1-216-809-11	METAL CHIP	100	5%	1/16W
R528	1-216-809-11	METAL CHIP	100	5%	1/16W
R529	1-216-809-11	METAL CHIP	100	5%	1/16W
R530	1-216-809-11	METAL CHIP	100	5%	1/16W
R531	1-216-833-11	METAL CHIP	10K	5%	1/16W
R532	1-216-809-11	METAL CHIP	100	5%	1/16W
R533	1-216-809-11	METAL CHIP	100	5%	1/16W
R534	1-216-809-11	METAL CHIP	100	5%	1/16W
R535	1-216-809-11	METAL CHIP	100	5%	1/16W
R536	1-216-809-11	METAL CHIP	100	5%	1/16W
R537	1-216-809-11	METAL CHIP	100	5%	1/16W
R540	1-216-841-11	METAL CHIP	47K	5%	1/16W
R541	1-216-809-11	METAL CHIP	100	5%	1/16W
R542	1-216-809-11	METAL CHIP	100	5%	1/16W
R543	1-216-809-11	METAL CHIP	100	5%	1/16W
R547	1-216-809-11	METAL CHIP	100	5%	1/16W
R548	1-216-809-11	METAL CHIP	100	5%	1/16W
R549	1-216-833-11	METAL CHIP	10K	5%	1/16W
R556	1-216-809-11	METAL CHIP	100	5%	1/16W
R557	1-216-809-11	METAL CHIP	100	5%	1/16W
R570	1-216-809-11	METAL CHIP	100	5%	1/16W
R571	1-216-835-11	METAL CHIP	15K	5%	1/16W
R572	1-216-835-11	METAL CHIP	15K	5%	1/16W
R573	1-216-809-11	METAL CHIP	100	5%	1/16W
R574	1-216-809-11	METAL CHIP	100	5%	1/16W
R575	1-216-809-11	METAL CHIP	100	5%	1/16W
R580	1-216-809-11	METAL CHIP	100	5%	1/16W
R581	1-216-809-11	METAL CHIP	100	5%	1/16W
R582	1-216-833-11	METAL CHIP	10K	5%	1/16W
R583	1-216-809-11	METAL CHIP	100	5%	1/16W
R584	1-216-809-11	METAL CHIP	100	5%	1/16W
R585	1-216-809-11	METAL CHIP	100	5%	1/16W
R586	1-216-809-11	METAL CHIP	100	5%	1/16W
R587	1-216-809-11	METAL CHIP	100	5%	1/16W
R588	1-216-809-11	METAL CHIP	100	5%	1/16W
R589	1-216-809-11	METAL CHIP	100	5%	1/16W
R590	1-216-809-11	METAL CHIP	100	5%	1/16W
R591	1-216-809-11	METAL CHIP	100	5%	1/16W
R592	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R593	1-216-295-00	SHORT	0		
R594	1-216-821-11	METAL CHIP	1K	5%	1/16W (XGR60)
R594	1-216-825-11	METAL CHIP	2.2K	5%	1/16W (XGR6)
R595	1-216-809-11	METAL CHIP	100	5%	1/16W
R596	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R597	1-218-892-11	METAL CHIP	75K	0.5%	1/10W
R598	1-218-892-11	METAL CHIP	75K	0.5%	1/10W
R599	1-216-821-11	METAL CHIP	1K	5%	1/16W
R601	1-216-821-11	METAL CHIP	1K	5%	1/16W
R602	1-216-821-11	METAL CHIP	1K	5%	1/16W
R603	1-216-841-11	METAL CHIP	47K	5%	1/16W

MAIN **MIC/GUITAR**

Ref. No.	Part No.	Description			Remarks
R604	1-216-820-11	METAL CHIP	820	5%	1/16W (XGR6)
R604	1-216-821-11	METAL CHIP	1K	5%	1/16W (XGR60)
R605	1-216-854-11	METAL CHIP	560K	5%	1/16W
R606	1-216-841-11	METAL CHIP	47K	5%	1/16W
R607	1-216-821-11	METAL CHIP	1K	5%	1/16W
R608	1-216-845-11	METAL CHIP	100K	5%	1/16W
R609	1-216-033-00	METAL CHIP	220	5%	1/10W
R611	1-216-821-11	METAL CHIP	1K	5%	1/16W
R612	1-216-821-11	METAL CHIP	1K	5%	1/16W
R613	1-216-815-11	METAL CHIP	330	5%	1/16W
R614	1-216-821-11	METAL CHIP	1K	5%	1/16W
R651	1-216-821-11	METAL CHIP	1K	5%	1/16W
R652	1-216-821-11	METAL CHIP	1K	5%	1/16W
R653	1-216-841-11	METAL CHIP	47K	5%	1/16W
R654	1-216-820-11	METAL CHIP	820	5%	1/16W (XGR6)
R654	1-216-821-11	METAL CHIP	1K	5%	1/16W (XGR60)
R655	1-216-854-11	METAL CHIP	560K	5%	1/16W
R656	1-216-841-11	METAL CHIP	47K	5%	1/16W
R657	1-216-821-11	METAL CHIP	1K	5%	1/16W
R658	1-216-845-11	METAL CHIP	100K	5%	1/16W
R701	1-216-821-11	METAL CHIP	1K	5%	1/16W
R702	1-216-845-11	METAL CHIP	100K	5%	1/16W
R703	1-216-821-11	METAL CHIP	1K	5%	1/16W
R704	1-216-845-11	METAL CHIP	100K	5%	1/16W
R705	1-216-833-11	METAL CHIP	10K	5%	1/16W
R706	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R707	1-216-841-11	METAL CHIP	47K	5%	1/16W
R708	1-216-821-11	METAL CHIP	1K	5%	1/16W (XGR6,XGR60:MX)
R709	1-216-821-11	METAL CHIP	1K	5%	1/16W (XGR6,XGR60:MX)
R710	1-216-845-11	METAL CHIP	100K	5%	1/16W (XGR6,XGR60:MX)
R722	1-216-804-11	METAL CHIP	39	5%	1/16W
R724	1-216-833-11	METAL CHIP	10K	5%	1/16W
R751	1-216-821-11	METAL CHIP	1K	5%	1/16W
R752	1-216-845-11	METAL CHIP	100K	5%	1/16W
R753	1-216-821-11	METAL CHIP	1K	5%	1/16W
R754	1-216-845-11	METAL CHIP	100K	5%	1/16W
R755	1-216-833-11	METAL CHIP	10K	5%	1/16W
R756	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R757	1-216-841-11	METAL CHIP	47K	5%	1/16W
R758	1-216-821-11	METAL CHIP	1K	5%	1/16W (XGR6,XGR60:MX)
R759	1-216-821-11	METAL CHIP	1K	5%	1/16W (XGR6,XGR60:MX)
R760	1-216-845-11	METAL CHIP	100K	5%	1/16W (XGR6,XGR60:MX)
R801	1-216-817-11	METAL CHIP	470	5%	1/16W
R802	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R803	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R804	1-216-841-11	METAL CHIP	47K	5%	1/16W
R805	1-216-841-11	METAL CHIP	47K	5%	1/16W
R806	1-216-833-11	METAL CHIP	10K	5%	1/16W
R807	1-216-295-00	SHORT	0		
R808	1-216-845-11	METAL CHIP	100K	5%	1/16W
R810	1-216-845-11	METAL CHIP	100K	5%	1/16W
R812	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R813	1-216-833-11	METAL CHIP	10K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R922	1-216-295-00	SHORT	0		
R961	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R962	1-216-837-11	METAL CHIP	22K	5%	1/16W
R963	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
		< VARIABLE RESISTOR >			
RV301	1-241-765-11	RES, ADJ, CARBON 22K (REC LEVEL (R))			
RV321	1-241-768-11	RES, ADJ, CARBON 220K (REC BIAS (L))			
RV322	1-241-768-11	RES, ADJ, CARBON 220K (REC BIAS (R))			
RV351	1-241-765-11	RES, ADJ, CARBON 22K (REC LEVEL (L))			
RV391	1-238-599-11	RES, ADJ, CARBON 4.7K (TAPE SPEED (NORMAL))			
RV392	1-238-598-11	RES, ADJ, CARBON 2.2K (TAPE SPEED (HIGH))			
		< TRANSFORMER >			
T331	1-423-980-11	TRANSFORMER, BIAS OSCILLATION			
		< VIBRATOR >			
X501	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
X502	1-781-107-21	VIBRATOR, CERAMIC (16MHz)			

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Ref. No.	Part No.	Description			Remarks
	A-4727-633-A	MIC/GUITAR BOARD, COMPLETE			
		************************			
		< CAPACITOR >			
C801	1-162-306-11	CERAMIC	0.01uF	30%	16V
C802	1-162-215-31	CERAMIC	47PF	5%	50V
C803	1-126-960-11	ELECT	1uF	20%	50V
C804	1-126-959-11	ELECT	0.47uF	20%	50V
C805	1-162-294-31	CERAMIC	0.001uF	10%	50V
C806	1-162-215-31	CERAMIC	47PF	5%	50V
C810	1-162-286-21	CERAMIC	220PF	10%	50V
C813	1-137-372-11	MYLAR	0.022uF	5%	50V
C814	1-162-215-31	CERAMIC	47PF	5%	50V
C815	1-162-215-31	CERAMIC	47PF	5%	50V
C816	1-126-961-11	ELECT	2.2uF	20%	50V
C817	1-126-961-11	ELECT	2.2uF	20%	50V
C818	1-162-215-31	CERAMIC	47PF	5%	50V
C819	1-162-215-31	CERAMIC	47PF	5%	50V
C821	1-126-947-11	ELECT	47uF	20%	16V
C822	1-126-947-11	ELECT	47uF	20%	16V
C824	1-126-961-11	ELECT	2.2uF	20%	50V
C836	1-162-306-11	CERAMIC	0.01uF	30%	16V
C837	1-126-964-11	ELECT	10uF	20%	50V
C838	1-126-964-11	ELECT	10uF	20%	50V
C880	1-126-961-11	ELECT	2.2uF	20%	50V
C881	1-162-215-31	CERAMIC	47PF	5%	50V
C882	1-162-215-31	CERAMIC	47PF	5%	50V
C884	1-126-961-11	ELECT	2.2uF	20%	50V
		< CONNECTOR >			
* CN812	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
		< FILTER >			
FL801	1-424-228-11	FILTER, NOISE			
		< IC >			
IC850	8-759-505-55	IC NJM4558L			
IC852	8-759-505-55	IC NJM4558L			

MIC/GUITAR **MOTOR** **PA**

Ref. No.	Part No.	Description			Remarks
IC853	8-759-505-55	IC NJM4558L			
		< JACK >			
J801	1-770-226-11	JACK (LARGE TYPE) (MIX MIC)			
J802	1-770-226-11	JACK (LARGE TYPE) (GUITAR)			
		< TRANSISTOR >			
Q880	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q881	8-729-029-86	TRANSISTOR DTC124ESA			
Q882	8-729-029-86	TRANSISTOR DTC124ESA			
Q883	8-729-029-40	TRANSISTOR DTA124ESA			
Q884	8-729-119-78	TRANSISTOR 2SC2785-HFE			
		< RESISTOR >			
R807	1-249-429-11	CARBON	10K	5%	1/4W
R809	1-249-417-11	CARBON	1K	5%	1/4W F
R850	1-249-417-11	CARBON	1K	5%	1/4W F
R852	1-249-441-11	CARBON	100K	5%	1/4W
R853	1-249-417-11	CARBON	1K	5%	1/4W F
R854	1-249-437-11	CARBON	47K	5%	1/4W
R855	1-249-429-11	CARBON	10K	5%	1/4W
R856	1-247-899-11	CARBON	680K	5%	1/4W
R857	1-249-425-11	CARBON	4.7K	5%	1/4W F
R867	1-249-421-11	CARBON	2.2K	5%	1/4W F
R869	1-249-439-11	CARBON	68K	5%	1/4W
R870	1-247-887-00	CARBON	220K	5%	1/4W
R872	1-249-421-11	CARBON	2.2K	5%	1/4W F
R873	1-249-421-11	CARBON	2.2K	5%	1/4W F
R874	1-249-431-11	CARBON	15K	5%	1/4W
R876	1-249-417-11	CARBON	1K	5%	1/4W F
R877	1-249-411-11	CARBON	330	5%	1/4W
R878	1-249-417-11	CARBON	1K	5%	1/4W F
R879	1-249-417-11	CARBON	1K	5%	1/4W F
R880	1-249-429-11	CARBON	10K	5%	1/4W
R881	1-249-437-11	CARBON	47K	5%	1/4W
R882	1-249-437-11	CARBON	47K	5%	1/4W
R883	1-249-437-11	CARBON	47K	5%	1/4W
R884	1-249-413-11	CARBON	470	5%	1/4W F
R885	1-249-429-11	CARBON	10K	5%	1/4W
R886	1-247-893-11	CARBON	390K	5%	1/4W
R887	1-249-429-11	CARBON	10K	5%	1/4W
R888	1-249-417-11	CARBON	1K	5%	1/4W F
R891	1-247-903-00	CARBON	1M	5%	1/4W

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Ref. No.	Part No.	Description			Remarks
*	A-4673-765-A	MOTOR BOARD, COMPLETE			
		**********************			
*	4-980-385-01	HOLDER (SW)			
		< CAPACITOR >			
C201	1-126-964-11	ELECT	10uF	20%	50V
C202	1-164-159-21	CERAMIC	0.1uF		50V
C203	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
* CN201	1-568-947-11	PIN, CONNECTOR 9P			
		< IC >			
IC201	8-759-365-94	IC TA8409S			
		< COIL >			
L201	1-408-117-00	INDUCTOR	10uH		
		< RESISTOR >			
R205	1-249-427-11	CARBON	6.8K	5%	1/4W F
R206	1-249-425-11	CARBON	4.7K	5%	1/4W F
		< SWITCH >			
S201	1-762-587-11	SWITCH, PUSH (1 KEY) (UP)			

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Ref. No.	Part No.	Description			Remarks
	A-4727-618-A	PA BOARD, COMPLETE (XGR60)			
	A-4727-641-A	PA BOARD, COMPLETE (XGR6)			
		******************			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
		< CAPACITOR >			
C401	1-126-963-11	ELECT	4.7uF	20%	50V
C412	1-162-306-11	CERAMIC	0.01uF	30%	16V
C413	1-162-306-11	CERAMIC	0.01uF	30%	16V
C432	1-126-933-11	ELECT	100uF	20%	16V
C433	1-126-962-11	ELECT	3.3uF	20%	50V (XGR60)
C433	1-126-961-11	ELECT	2.2uF	20%	50V (XGR6)
C801	1-128-582-11	ELECT	10uF	20%	100V
C802	1-162-290-31	CERAMIC	470PF	10%	50V
C803	1-162-286-21	CERAMIC	220PF	10%	50V
C804	1-126-967-11	ELECT	47uF	20%	50V
C807	1-128-560-11	ELECT	22uF	20%	100V
C808	1-137-749-11	MYLAR	0.1uF		100V
C809	1-137-749-11	MYLAR	0.1uF		100V
C810	1-128-562-11	ELECT	47uF	20%	100V (XGR60)
C810	1-128-578-11	ELECT	1uF	20%	100V (XGR6)
C811	1-130-491-00	MYLAR	0.047uF	5%	50V
C812	1-130-491-00	MYLAR	0.047uF	5%	50V
C813	1-162-306-11	CERAMIC	0.01uF	30%	16V
C814	1-162-294-31	CERAMIC	0.001uF	10%	50V
C815	1-126-959-11	ELECT	0.47uF	20%	50V
C830	1-107-714-11	ELECT	10uF	20%	50V
C831	1-126-964-11	ELECT	10uF	20%	50V
C832	1-126-967-11	ELECT	47uF	20%	50V
C841	1-127-811-11	ELECT	3300uF	20%	50V (XGR60)
C841	1-127-753-11	ELECT	3300uF	20%	71V (XGR6)
C842	1-127-814-11	ELECT	3300uF	20%	80V (XGR60)
C844	1-137-749-11	MYLAR	0.1uF		100V (XGR60)
C845	1-126-943-11	ELECT	2200uF	20%	25V
C847	1-164-159-21	CERAMIC	0.1uF		50V
C848	1-164-159-21	CERAMIC	0.1uF		50V
C849	1-164-159-21	CERAMIC	0.1uF		50V
C850	1-107-721-11	ELECT	4.7uF	20%	100V
C851	1-128-582-11	ELECT	10uF	20%	100V
C852	1-162-290-31	CERAMIC	470PF	10%	50V
C853	1-162-286-21	CERAMIC	220PF	10%	50V

PA

Ref. No.	Part No.	Description			Remarks
C854	1-126-967-11	ELECT	47uF	20%	50V
C857	1-128-560-11	ELECT	22uF	20%	100V
C858	1-164-159-21	CERAMIC	0.1uF		50V
C859	1-164-159-21	CERAMIC	0.1uF		50V
C861	1-130-491-00	MYLAR	0.047uF	5%	50V
C862	1-130-491-00	MYLAR	0.047uF	5%	50V
C863	1-126-961-11	ELECT	2.2uF	20%	50V
C864	1-126-964-11	ELECT	10uF	20%	50V
C891	1-127-811-11	ELECT	3300uF	20%	50V (XGR60)
C891	1-127-753-11	ELECT	3300uF	20%	71V (XGR6)
C892	1-127-814-11	ELECT	3300uF	20%	80V (XGR60)
C894	1-137-749-11	MYLAR	0.1uF		100V (XGR60)
C895	1-107-721-11	ELECT	4.7uF	20%	100V
C902	1-164-159-21	CERAMIC	0.1uF		50V
C903	1-126-933-11	ELECT	100uF	20%	16V
C904	1-126-964-11	ELECT	10uF	20%	50V
C905	1-126-968-11	ELECT	100uF	20%	50V
C906	1-126-943-11	ELECT	2200uF	20%	25V
C909	1-164-159-21	CERAMIC	0.1uF		50V
C910	1-126-947-11	ELECT	47uF	20%	16V (XGR6)
		< CONNECTOR >			
CN803	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P			
CN804	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P			
CN806	1-785-316-11	PIN, CONNECTOR (STRAIGHT) 4P			
CN904	1-785-316-11	PIN, CONNECTOR (STRAIGHT) 4P			
		< DIODE >			
D401	8-719-991-33	DIODE 1SS133T-77			
D402	8-719-991-33	DIODE 1SS133T-77			
D405	8-719-991-33	DIODE 1SS133T-77			
D406	8-719-991-33	DIODE 1SS133T-77			
D801	8-719-991-33	DIODE 1SS133T-77			
D802	8-719-110-39	DIODE RD15ESB1 (XGR60)			
D803	8-719-991-33	DIODE 1SS133T-77			
D804	8-719-991-33	DIODE 1SS133T-77			
D805	8-719-991-33	DIODE 1SS133T-77			
D831	8-719-510-68	DIODE D5SBA204101 (XGR60)			
D833	8-719-200-82	DIODE 11ES2			
D834	8-719-200-82	DIODE 11ES2			
D835	8-719-200-82	DIODE 11ES2			
D836	8-719-200-82	DIODE 11ES2			
D841	8-719-200-82	DIODE 11ES2			
D842	8-719-200-82	DIODE 11ES2			
D843	8-719-200-82	DIODE 11ES2			
D844	8-719-200-82	DIODE 11ES2			
D851	8-719-991-33	DIODE 1SS133T-77			
D852	8-719-110-39	DIODE MTZJ-T-77-15A (XGR60)			
D853	8-719-991-33	DIODE 1SS133T-77			
D902	8-719-200-82	DIODE 11ES2			
D903	8-719-200-82	DIODE 11ES2			
D904	8-719-200-82	DIODE 11ES2			
D905	8-719-200-82	DIODE 11ES2			
D911	8-719-982-24	DIODE MTZJ-33A			
D912	8-719-109-89	DIODE RD5.6ESB2			
		< IC >			
IC801	8-749-017-05	IC STK412-040 (XGR60)			

Ref. No.	Part No.	Description			Remarks
IC801	8-749-017-16	IC STK442-130 (XGR6)			
IC901	6-701-760-01	IC uPC3504AHF			
		< TRANSISTOR >			
Q401	8-729-029-40	TRANSISTOR DTA124ESA (XGR60)			
Q401	8-729-140-82	TRANSISTOR 2SA988-PAFAEA (XGR6)			
Q402	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q431	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q432	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q433	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q434	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q437	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q439	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q801	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q803	8-729-140-82	TRANSISTOR 2SA988-PAFAEA			
Q804	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q805	8-729-231-55	TRANSISTOR 2SC2878-AB			
Q831	8-729-029-86	TRANSISTOR DTC124ESA			
Q832	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q833	8-729-029-40	TRANSISTOR DTA124ESA			
Q834	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q851	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q855	8-729-231-55	TRANSISTOR 2SC2878-AB			
Q901	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q903	8-729-048-52	TRANSISTOR 2SA1932(TP)			
Q908	8-729-119-76	TRANSISTOR 2SA1175-HFE			
		< RESISTOR >			
⚠R401	1-216-431-11	METAL OXIDE	560	5%	1W (XGR60)
⚠R401	1-216-458-11	METAL OXIDE	1.8K	5%	2W (XGR6)
R406	1-249-437-11	CARBON	47K	5%	1/4W
R407	1-249-437-11	CARBON	47K	5%	1/4W
R429	1-249-437-11	CARBON	47K	5%	1/4W
R431	1-249-438-11	CARBON	56K	5%	1/4W
R432	1-249-437-11	CARBON	47K	5%	1/4W
R434	1-249-433-11	CARBON	22K	5%	1/4W
R437	1-249-429-11	CARBON	10K	5%	1/4W
R439	1-249-425-11	CARBON	4.7K	5%	1/4W F
R440	1-249-433-11	CARBON	22K	5%	1/4W (XGR60
R440	1-249-437-11	CARBON	47K	5%	1/4W (XGR6)
R441	1-249-435-11	CARBON	33K	5%	1/4W
R446	1-249-429-11	CARBON	10K	5%	1/4W
R447	1-249-437-11	CARBON	47K	5%	1/4W
R460	1-249-429-11	CARBON	10K	5%	1/4W (XGR6)
R801	1-249-417-11	CARBON	1K	5%	1/4W F
R802	1-249-437-11	CARBON	47K	5%	1/4W
R803	1-249-414-11	CARBON	560	5%	1/4W F
R804	1-249-435-11	CARBON	33K	5%	1/4W
R805	1-216-436-00	METAL OXIDE	3.9K	5%	1W (XGR60)
R806	1-216-436-00	METAL OXIDE	3.9K	5%	1W (XGR60)
⚠R807	1-212-881-11	FUSIBLE	100	5%	1/4W
⚠R808	1-220-893-11	METAL	0.22	10%	5W
R809	1-260-076-11	CARBON	10	5%	1/2W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description			Remarks
R810	1-249-435-11	CARBON	33K	5%	1/4W (XGR60)
R810	1-249-437-11	CARBON	47K	5%	1/4W (XGR6)
R811	1-249-417-11	CARBON	1K	5%	1/4W F
R812	1-249-431-11	CARBON	15K	5%	1/4W
R813	1-249-441-11	CARBON	100K	5%	1/4W
R814	1-249-421-11	CARBON	2.2K	5%	1/4W F
R815	1-249-433-11	CARBON	22K	5%	1/4W
R816	1-249-429-11	CARBON	10K	5%	1/4W (XGR6)
R817	1-249-437-11	CARBON	47K	5%	1/4W
R818	1-249-409-11	CARBON	220	5%	1/4W F
R819	1-249-439-11	CARBON	68K	5%	1/4W
⚠R820	1-202-972-61	FUSIBLE	1	5%	1/4W
R821	1-249-435-11	CARBON	33K	5%	1/4W
R822	1-249-433-11	CARBON	22K	5%	1/4W
R823	1-249-433-11	CARBON	22K	5%	1/4W
R824	1-249-413-11	CARBON	470	5%	1/4W F
⚠R825	1-215-891-11	METAL OXIDE	680	5%	2W
R827	1-249-441-11	CARBON	100K	5%	1/4W
R828	1-247-903-00	CARBON	1M	5%	1/4W
R831	1-249-441-11	CARBON	100K	5%	1/4W
R832	1-249-441-11	CARBON	100K	5%	1/4W
R833	1-249-432-11	CARBON	18K	5%	1/4W (XGR60)
R833	1-249-433-11	CARBON	22K	5%	1/4W (XGR6)
R834	1-249-429-11	CARBON	10K	5%	1/4W
R835	1-249-437-11	CARBON	47K	5%	1/4W
R836	1-249-417-11	CARBON	1K	5%	1/4W F
R837	1-249-435-11	CARBON	33K	5%	1/4W
R838	1-249-435-11	CARBON	33K	5%	1/4W
R839	1-249-441-11	CARBON	100K	5%	1/4W (XGR60)
R840	1-249-402-11	CARBON	56	5%	1/4W F
R851	1-249-417-11	CARBON	1K	5%	1/4W F
R852	1-249-437-11	CARBON	47K	5%	1/4W
R853	1-249-414-11	CARBON	560	5%	1/4W F
⚠R855	1-215-891-11	METAL OXIDE	680	5%	2W
⚠R857	1-212-881-11	FUSIBLE	100	5%	1/4W
⚠R858	1-220-893-11	METAL	0.22	10%	5W
R859	1-260-076-11	CARBON	10	5%	1/2W
R860	1-249-435-11	CARBON	33K	5%	1/4W (XGR60)
R860	1-249-437-11	CARBON	47K	5%	1/4W (XGR6)
R861	1-249-417-11	CARBON	1K	5%	1/4W F
R862	1-249-431-11	CARBON	15K	5%	1/4W
R863	1-249-441-11	CARBON	100K	5%	1/4W
R864	1-249-425-11	CARBON	4.7K	5%	1/4W F
R865	1-249-433-11	CARBON	22K	5%	1/4W
R866	1-249-429-11	CARBON	10K	5%	1/4W
R867	1-249-421-11	CARBON	2.2K	5%	1/4W F (XGR6)
R868	1-249-409-11	CARBON	220	5%	1/4W F
R880	1-249-402-11	CARBON	56	5%	1/4W F
⚠R888	1-220-893-11	METAL	0.22	10%	5W
R889	1-249-441-11	CARBON	100K	5%	1/4W (XGR60)
⚠R898	1-220-893-11	METAL	0.22	10%	5W
R901	1-249-429-11	CARBON	10K	5%	1/4W
R902	1-249-441-11	CARBON	100K	5%	1/4W
R903	1-249-429-11	CARBON	10K	5%	1/4W
R904	1-249-417-11	CARBON	1K	5%	1/4W F
R905	1-249-429-11	CARBON	10K	5%	1/4W
R906	1-247-807-31	CARBON	100	5%	1/4W
R907	1-247-807-31	CARBON	100	5%	1/4W
R915	1-247-791-91	CARBON	22	5%	1/4W
⚠R916	1-215-916-00	METAL OXIDE	680	5%	3W (XGR60)
		< RELAY >			
RY401	1-515-920-11	RELAY			
		< THERMISTOR >			
TH831	1-807-796-11	THERMISTOR			
		< TERMINAL >			
TM401	1-537-925-62	TERMINAL BOARD (FRONT SPEAKER)			

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Ref. No.	Part No.	Description			Remarks
	A-4727-623-A	PANEL FL BOARD, COMPLETE			
		*************************			
	4-225-511-01	HOLDER FL TUBE			
*	4-949-935-81	CUSHION (FL)			
		< CAPACITOR >			
C601	1-162-294-31	CERAMIC	0.001uF	10%	50V
C602	1-126-947-11	ELECT	47uF	20%	16V
C603	1-162-306-11	CERAMIC	0.01uF	30%	16V
C604	1-126-947-11	ELECT	47uF	20%	16V
C605	1-162-306-11	CERAMIC	0.01uF	30%	16V
C606	1-126-963-11	ELECT	4.7uF	20%	50V
C607	1-164-159-21	CERAMIC	0.1uF		50V
C612	1-162-294-31	CERAMIC	0.001uF	10%	50V
C613	1-126-964-11	ELECT	10uF	20%	50V
C614	1-126-947-11	ELECT	47uF	20%	16V
C615	1-126-964-11	ELECT	10uF	20%	50V
C616	1-162-303-11	CERAMIC	0.0033uF	30%	16V
C617	1-126-157-11	ELECT	10uF	20%	16V
C618	1-126-157-11	ELECT	10uF	20%	16V
C619	1-162-306-11	CERAMIC	0.01uF	30%	16V
C625	1-126-964-11	ELECT	10uF	20%	50V
C627	1-126-960-11	ELECT	1uF	20%	50V
C628	1-126-960-11	ELECT	1uF	20%	50V
		< CONNECTOR >			
* CN601	1-568-865-11	SOCKET, CONNECTOR 23P			
CN602	1-784-780-11	CONNECTOR, FFC 19P			
		< DIODE >			
D601	8-719-991-33	DIODE 1SS133T-77			
D602	8-719-058-04	DIODE SEL5223S-TP15 (I/⏻)			
D603	8-719-058-03	DIODE SEL5423E-TP15 (SALSA)			
D604	8-719-058-03	DIODE SEL5423E-TP15 (REGGAE)			
D605	8-719-058-03	DIODE SEL5423E-TP15 (TANGO)			
D606	8-719-058-03	DIODE SEL5423E-TP15 (SAMBA)			
D607	8-719-058-03	DIODE SEL5423E-TP15 (MOVIE)			
D608	8-719-058-03	DIODE SEL5423E-TP15 (GAME MIXING)			
D609	8-719-058-03	DIODE SEL5423E-TP15 (GUITAR)			
D610	8-719-058-03	DIODE SEL5423E-TP15 (ROCK)			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

PANEL FL

Ref. No.	Part No.	Description			Remarks	
D611	8-719-058-03	DIODE SEL5423E-TP15 (JAZZ)				
D612	8-719-058-03	DIODE SEL5423E-TP15 (DANCE)				
D613	8-719-058-03	DIODE SEL5423E-TP15 (GAME)				
		< FERRITE BEAD >				
FB601	1-412-473-21	INDUCTOR	0UH			
		< FLUORESCENT INDICATOR TUBE >				
FL601	1-518-794-11	INDICATOR TUBE, FLUORESCENT				
		< IC >				
IC601	6-801-052-01	IC MB90M407APF-G-112-BND				
IC602	8-759-083-77	IC BA3830F				
IC603	8-759-826-34	IC NJL74H400A				
		< COIL >				
L603	1-410-517-11	INDUCTOR	47uH			
		< TRANSISTOR >				
Q601	8-729-029-86	TRANSISTOR DTC124ESA				
Q602	8-729-620-05	TRANSISTOR 2SC2603-EF				
Q603	8-729-140-04	TRANSISTOR 2SB1116A-L				
Q604	8-729-620-05	TRANSISTOR 2SC2603-EF				
Q605	8-729-140-04	TRANSISTOR 2SB1116A-L				
Q606	8-729-047-58	TRANSISTOR DTC114TLTL2				
Q607	8-729-047-58	TRANSISTOR DTC114TLTL2				
Q608	8-729-047-58	TRANSISTOR DTC114TLTL2				
Q609	8-729-047-58	TRANSISTOR DTC114TLTL2				
		< RESISTOR >				
R600	1-249-417-11	CARBON	1K	5%	1/4W	F
R601	1-249-441-11	CARBON	100K	5%	1/4W	
R602	1-249-429-11	CARBON	10K	5%	1/4W	
R603	1-249-429-11	CARBON	10K	5%	1/4W	
R604	1-249-429-11	CARBON	10K	5%	1/4W	
R605	1-247-807-31	CARBON	100	5%	1/4W	
R606	1-249-429-11	CARBON	10K	5%	1/4W	
R607	1-249-429-11	CARBON	10K	5%	1/4W	
R608	1-247-807-31	CARBON	100	5%	1/4W	
R609	1-249-429-11	CARBON	10K	5%	1/4W	
R610	1-247-807-31	CARBON	100	5%	1/4W	
R612	1-249-431-11	CARBON	15K	5%	1/4W	
R613	1-249-431-11	CARBON	15K	5%	1/4W	
R614	1-249-431-11	CARBON	15K	5%	1/4W	
R615	1-249-431-11	CARBON	15K	5%	1/4W	
R616	1-249-431-11	CARBON	15K	5%	1/4W	
R617	1-249-431-11	CARBON	15K	5%	1/4W	
R618	1-247-807-31	CARBON	100	5%	1/4W	
R619	1-249-433-11	CARBON	22K	5%	1/4W	
R620	1-247-903-00	CARBON	1M	5%	1/4W	
R621	1-249-413-11	CARBON	470	5%	1/4W	F
R622	1-249-415-11	CARBON	680	5%	1/4W	F
R623	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R624	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R625	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R626	1-249-417-11	CARBON	1K	5%	1/4W	F
R627	1-249-415-11	CARBON	680	5%	1/4W	F
R628	1-249-413-11	CARBON	470	5%	1/4W	F
R629	1-249-413-11	CARBON	470	5%	1/4W	F
R630	1-249-415-11	CARBON	680	5%	1/4W	F
R631	1-249-417-11	CARBON	1K	5%	1/4W	F

Ref. No.	Part No.	Description			Remarks	
R632	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R633	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R634	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R635	1-249-413-11	CARBON	470	5%	1/4W	F
R636	1-249-415-11	CARBON	680	5%	1/4W	F
R637	1-249-413-11	CARBON	470	5%	1/4W	F
R638	1-249-415-11	CARBON	680	5%	1/4W	F
R639	1-249-417-11	CARBON	1K	5%	1/4W	F
R640	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R641	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R642	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R643	1-249-401-11	CARBON	47	5%	1/4W	F
R644	1-247-891-00	CARBON	330K	5%	1/4W	
R645	1-247-891-00	CARBON	330K	5%	1/4W	
R646	1-249-441-11	CARBON	100K	5%	1/4W	
R647	1-249-440-11	CARBON	82K	5%	1/4W	
R648	1-249-437-11	CARBON	47K	5%	1/4W	
R649	1-249-441-11	CARBON	100K	5%	1/4W	
R650	1-249-440-11	CARBON	82K	5%	1/4W	
R651	1-249-429-11	CARBON	10K	5%	1/4W	
R652	1-247-843-11	CARBON	3.3K	5%	1/4W	
R653	1-249-441-11	CARBON	100K	5%	1/4W	
R654	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R665	1-249-441-11	CARBON	100K	5%	1/4W	
R666	1-249-441-11	CARBON	100K	5%	1/4W	
R667	1-249-441-11	CARBON	100K	5%	1/4W	
R668	1-249-441-11	CARBON	100K	5%	1/4W	
R669	1-247-791-91	CARBON	22	5%	1/4W	
R670	1-247-791-91	CARBON	22	5%	1/4W	
R671	1-247-791-91	CARBON	22	5%	1/4W	
R672	1-247-791-91	CARBON	22	5%	1/4W	
R673	1-247-791-91	CARBON	22	5%	1/4W	
R674	1-247-791-91	CARBON	22	5%	1/4W	
R675	1-247-791-91	CARBON	22	5%	1/4W	
R676	1-247-791-91	CARBON	22	5%	1/4W	
R677	1-247-791-91	CARBON	22	5%	1/4W	
R678	1-247-791-91	CARBON	22	5%	1/4W	
R679	1-247-791-91	CARBON	22	5%	1/4W	
R680	1-249-411-11	CARBON	330	5%	1/4W	
R681	1-249-437-11	CARBON	47K	5%	1/4W	
R683	1-249-437-11	CARBON	47K	5%	1/4W	
R684	1-249-417-11	CARBON	1K	5%	1/4W	F
R685	1-249-417-11	CARBON	1K	5%	1/4W	F
R686	1-249-437-11	CARBON	47K	5%	1/4W	
R688	1-249-437-11	CARBON	47K	5%	1/4W	
R689	1-249-417-11	CARBON	1K	5%	1/4W	F
R690	1-249-417-11	CARBON	1K	5%	1/4W	F
R691	1-249-413-11	CARBON	470	5%	1/4W	F
R692	1-249-413-11	CARBON	470	5%	1/4W	F
R693	1-249-429-11	CARBON	10K	5%	1/4W	
R694	1-249-429-11	CARBON	10K	5%	1/4W	
R695	1-247-807-31	CARBON	100	5%	1/4W	
R696	1-247-807-31	CARBON	100	5%	1/4W	
R697	1-247-807-31	CARBON	100	5%	1/4W	
R698	1-249-415-11	CARBON	680	5%	1/4W	F
R699	1-249-413-11	CARBON	470	5%	1/4W	F
R700	1-249-413-11	CARBON	470	5%	1/4W	F
		< SWITCH >				
S601	1-762-875-21	SWITCH, KEYBOARD (SALSA)				
S602	1-762-875-21	SWITCH, KEYBOARD (REGGAE)				
S603	1-762-875-21	SWITCH, KEYBOARD (TANGO)				

Ref. No.	Part No.	Description	Remarks
S604	1-762-875-21	SWITCH, KEYBOARD (SAMBA)	
S605	1-762-875-21	SWITCH, KEYBOARD (MOVIE)	
S606	1-762-875-21	SWITCH, KEYBOARD (GUITAR)	
S607	1-762-875-21	SWITCH, KEYBOARD (ROCK)	
S608	1-762-875-21	SWITCH, KEYBOARD (JAZZ)	
S609	1-762-875-21	SWITCH, KEYBOARD (DANCE)	
S610	1-762-875-21	SWITCH, KEYBOARD (GAME)	
S611	1-762-875-21	SWITCH, KEYBOARD (SPECTRUM ANALYZER)	
S612	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)	
S613	1-762-875-21	SWITCH, KEYBOARD (SLEEP)	
S614	1-762-875-21	SWITCH, KEYBOARD (TIMER SELECT)	
S615	1-762-875-21	SWITCH, KEYBOARD (◷/CLOCK SET)	
S616	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)	
S617	1-762-875-21	SWITCH, KEYBOARD (GAME)	
S618	1-762-875-21	SWITCH, KEYBOARD (GAME MIXING)	
S619	1-762-875-21	SWITCH, KEYBOARD (POWER SAVE/DEMO(STANDBY))	
S620	1-762-875-21	SWITCH, KEYBOARD (I/⏻)	
		< VIBRATOR >	
X601	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	

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Ref. No.	Part No.	Description	Remarks
	A-4727-624-A	PANEL VR BOARD, COMPLETE	
		**********************	
		< CAPACITOR >	
C701	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C702	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C703	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C704	1-126-947-11	ELECT 47uF 20% 16V	
C705	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C706	1-164-159-21	CERAMIC 0.1uF 50V	
C707	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C708	1-162-306-11	CERAMIC 0.01uF 30% 16V	
		< CONNECTOR >	
* CN701	1-568-865-11	SOCKET, CONNECTOR 23P	
		< DIODE >	
D701	8-719-058-64	DIODE SEL5823A-TP15 (VU1)	
D702	8-719-058-64	DIODE SEL5823A-TP15 (VU2)	
D703	8-719-058-64	DIODE SEL5823A-TP15 (VU3)	
D704	8-719-058-64	DIODE SEL5823A-TP15 (VU4)	
D705	8-719-058-64	DIODE SEL5823A-TP15 (VU5)	
D706	8-719-058-64	DIODE SEL5823A-TP15 (VU6)	
D707	8-719-058-64	DIODE SEL5823A-TP15 (VU7)	
D708	8-719-058-64	DIODE SEL5823A-TP15 (VU8)	
D709	8-719-058-64	DIODE SEL5823A-TP15 (VU9)	
D710	8-719-058-04	DIODE SEL5223S-TP15 (VU10)	
D711	8-719-058-04	DIODE SEL5223S-TP15 (VU11)	
D712	8-719-058-04	DIODE SEL5223S-TP15 (VU12)	
D713	8-719-058-04	DIODE SEL5223S-TP15 (GROOVE)	
D714	8-719-058-04	DIODE SEL5223S-TP15 (SUPER WOOFER)	
D715	8-719-058-04	DIODE SEL5223S-TP15 (SURROUND)	
D716	8-719-058-04	DIODE SEL5223S-TP15 (ENTER)	
D717	8-719-058-04	DIODE SEL5223S-TP15 (GUITAR DISTORSION)	
D719	8-719-058-03	DIODE SEL5423E-TP15 (TUNER/BAND)	
D720	8-719-058-04	DIODE SEL5223S-TP15 (TUNER ENTER)	
		< IC >	
IC701	8-759-373-50	IC NJU3719L	
		< COIL >	
L701	1-410-509-11	INDUCTOR 10uH	
		< RESISTOR >	
R701	1-249-429-11	CARBON 10K 5% 1/4W	
R702	1-247-807-31	CARBON 100 5% 1/4W	
R703	1-247-807-31	CARBON 100 5% 1/4W	
R704	1-247-807-31	CARBON 100 5% 1/4W	
R705	1-249-417-11	CARBON 1K 5% 1/4W	F
R706	1-249-417-11	CARBON 1K 5% 1/4W	F
R707	1-249-417-11	CARBON 1K 5% 1/4W	F
R708	1-249-419-11	CARBON 1.5K 5% 1/4W	F
R709	1-249-419-11	CARBON 1.5K 5% 1/4W	F
R710	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R711	1-247-843-11	CARBON 3.3K 5% 1/4W	
R712	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R713	1-249-427-11	CARBON 6.8K 5% 1/4W	F
R714	1-249-429-11	CARBON 10K 5% 1/4W	
R715	1-249-431-11	CARBON 15K 5% 1/4W	
R716	1-249-433-11	CARBON 22K 5% 1/4W	
R718	1-249-415-11	CARBON 680 5% 1/4W	F
R719	1-249-417-11	CARBON 1K 5% 1/4W	F
R720	1-249-419-11	CARBON 1.5K 5% 1/4W	F
R721	1-249-419-11	CARBON 1.5K 5% 1/4W	F
R722	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R723	1-247-843-11	CARBON 3.3K 5% 1/4W	
R724	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R725	1-249-427-11	CARBON 6.8K 5% 1/4W	F
R726	1-249-429-11	CARBON 10K 5% 1/4W	
R731	1-247-791-91	CARBON 22 5% 1/4W	
R732	1-247-791-91	CARBON 22 5% 1/4W	
R733	1-247-791-91	CARBON 22 5% 1/4W	
R734	1-247-791-91	CARBON 22 5% 1/4W	
R735	1-247-791-91	CARBON 22 5% 1/4W	
R736	1-247-791-91	CARBON 22 5% 1/4W	
R737	1-247-791-91	CARBON 22 5% 1/4W	
R738	1-247-791-91	CARBON 22 5% 1/4W	
R739	1-247-791-91	CARBON 22 5% 1/4W	
R740	1-249-401-11	CARBON 47 5% 1/4W	F
R741	1-249-401-11	CARBON 47 5% 1/4W	F
R742	1-249-401-11	CARBON 47 5% 1/4W	F
R743	1-247-807-31	CARBON 100 5% 1/4W	
R744	1-247-807-31	CARBON 100 5% 1/4W	
R745	1-247-807-31	CARBON 100 5% 1/4W	
R746	1-247-807-31	CARBON 100 5% 1/4W	
R747	1-247-807-31	CARBON 100 5% 1/4W	
R749	1-247-791-91	CARBON 22 5% 1/4W	
R750	1-247-807-31	CARBON 100 5% 1/4W	
		< SWITCH >	
S700	1-473-392-11	ENCODER, ROTARY (VOLUME)	
S701	1-762-875-21	SWITCH, KEYBOARD (GROOVE)	
S702	1-762-875-21	SWITCH, KEYBOARD (SURROUND)	
S703	1-762-875-21	SWITCH, KEYBOARD (EFFECT ON/OFF)	
S704	1-762-875-21	SWITCH, KEYBOARD (P FILE)	
S705	1-762-875-21	SWITCH, KEYBOARD (ENTER)	
S706	1-762-875-21	SWITCH, KEYBOARD (↑)	
S707	1-762-875-21	SWITCH, KEYBOARD (↓)	
S708	1-762-875-21	SWITCH, KEYBOARD (→)	
S709	1-762-875-21	SWITCH, KEYBOARD (←)	
S710	1-762-875-21	SWITCH, KEYBOARD (MIX GUITAR/KARAOKE)	

PANEL VR | SENSOR | SUB TRANS | TC-A | TC-B | TRANS

Ref. No.	Part No.	Description			Remarks
S711	1-762-875-21	SWITCH, KEYBOARD (GUITAR DISTORTION)			
S713	1-762-875-21	SWITCH, KEYBOARD (SUPER WOOFER)			
S714	1-762-875-21	SWITCH, KEYBOARD (SUPER WOOFER MODE)			
S715	1-762-875-21	SWITCH, KEYBOARD (X-GROOVE)			
S716	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)			
S717	1-762-875-21	SWITCH, KEYBOARD (TUNING -)			
S718	1-762-875-21	SWITCH, KEYBOARD (TUNUNG +)			
S719	1-762-875-21	SWITCH, KEYBOARD (FM MODE)			
S720	1-762-875-21	SWITCH, KEYBOARD (TUNER ENTER)			
S721	1-762-875-21	SWITCH, KEYBOARD (TUNER MEMORY)			
S722	1-762-875-21	SWITCH, KEYBOARD (TUNING MODE)			

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Ref. No.	Part No.	Description			Remarks
*	1-659-058-13	SENSOR BOARD ************			
		< IC >			
IC202	8-749-924-18	PHOTO INTERRUPTER RPI-1391			
		< RESISTOR >			
R207	1-249-416-11	CARBON	820	5%	1/4W F

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Ref. No.	Part No.	Description			Remarks
	1-683-445-11	SUB TRANS BOARD **************			
		< CAPACITOR >			
⚠C901	1-113-925-11	CERAMIC	0.01uF	20%	250V
		< CONNECTOR >			
CN901	1-564-321-00	PIN, CONNECTOR 2P			
CN902	1-568-106-11	PIN, CONNECTOR 4P (XGR60:AR,E,E51)			
* CN902	1-564-321-21	PIN, CONNECTOR 2P (XGR6,XGR60:MX)			
		< DIODE >			
D901	8-719-983-61	DIODE MTZJ-T-72-3.3 (XGR60)			
D901	8-719-991-33	DIODE 1SS133T-77 (XGR6)			
		< RELAY >			
⚠RY901	1-755-276-11	RELAY, POWER			
		< SWITCH >			
⚠S901	1-786-055-21	SELECTOR, VOLTAGE (VOLTAGE SELECT) (XGR60:AR,E,E51)			
		< TRANSFORMER >			
⚠T901	1-437-331-11	TRANSFORMER, POWER (XGR60)			
⚠T901	1-435-826-11	TRANSFORMER, POWER (XGR6)			

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Ref. No.	Part No.	Description			Remarks
	1-683-448-11	TC-A BOARD *********			
		< DIODE >			
D805	8-719-058-03	DIODE SEL5423E-TP15 (▷)			
D806	8-719-058-03	DIODE SEL5423E-TP15 (◁)			
		< RESISTOR >			
R813	1-247-843-11	CARBON	3.3K	5%	1/4W
R814	1-249-425-11	CARBON	4.7K	5%	1/4W F
R815	1-249-427-11	CARBON	6.8K	5%	1/4W F
R816	1-249-429-11	CARBON	10K	5%	1/4W
R817	1-249-431-11	CARBON	15K	5%	1/4W
R819	1-247-791-91	CARBON	22	5%	1/4W
R820	1-247-791-91	CARBON	22	5%	1/4W
		< VARIABLE RESISTOR >			
RV801	1-225-739-11	RES, VAR CARBON 50K (GUITAR LEVEL)			
RV802	1-225-739-11	RES, VAR CARBON 50K (MIC LEVEL)			
		< SWITCH >			
S810	1-762-875-21	SWITCH, KEYBOARD (▷)			
S811	1-762-875-21	SWITCH, KEYBOARD (◁)			
S812	1-762-875-21	SWITCH, KEYBOARD (■)			
S813	1-762-875-21	SWITCH, KEYBOARD (⏮◀◀)			
S814	1-762-875-21	SWITCH, KEYBOARD (▶▶⏭)			
S815	1-762-875-21	SWITCH, KEYBOARD (DIRECTION)			

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Ref. No.	Part No.	Description			Remarks
	1-683-449-11	TC-B BOARD **********			
		< DIODE >			
D801	8-719-058-03	DIODE SEL5423E-TP15 (▷)			
D802	8-719-058-03	DIODE SEL5423E-TP15 (◁)			
D803	8-719-057-97	DIODE SEL5923A-TP15 (❚❚)			
D804	8-719-058-04	DIODE SEL5223S-TP15 (●REC)			
		< RESISTOR >			
R801	1-247-843-11	CARBON	3.3K	5%	1/4W
R802	1-249-425-11	CARBON	4.7K	5%	1/4W F
R803	1-249-427-11	CARBON	6.8K	5%	1/4W F
R804	1-249-429-11	CARBON	10K	5%	1/4W
R805	1-249-431-11	CARBON	15K	5%	1/4W
R806	1-249-433-11	CARBON	22K	5%	1/4W
R807	1-249-435-11	CARBON	33K	5%	1/4W
R808	1-249-439-11	CARBON	68K	5%	1/4W
R809	1-247-791-91	CARBON	22	5%	1/4W
R810	1-247-791-91	CARBON	22	5%	1/4W
R811	1-247-791-91	CARBON	22	5%	1/4W
R812	1-249-401-11	CARBON	47	5%	1/4W F
		< SWITCH >			
S801	1-762-875-21	SWITCH, KEYBOARD (▷)			
S802	1-762-875-21	SWITCH, KEYBOARD (◁)			
S803	1-762-875-21	SWITCH, KEYBOARD (■)			
S804	1-762-875-21	SWITCH, KEYBOARD (⏮◀◀)			
S805	1-762-875-21	SWITCH, KEYBOARD (▶▶⏭)			
S806	1-762-875-21	SWITCH, KEYBOARD (●REC)			
S807	1-762-875-21	SWITCH, KEYBOARD (❚❚)			
S808	1-762-875-21	SWITCH, KEYBOARD (H SPEED DUB)			
S809	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)			

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Ref. No.	Part No.	Description			Remarks
	1-683-444-11	TRANS BOARD ***********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
		< CAPACITOR >			
C834	1-137-749-11	MYLAR	0.1uF		100V

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

TRANS

Ref. No.	Part No.	Description			Remarks
C893	1-137-749-11	MYLAR	0.1uF		100V
C961	1-162-306-11	CERAMIC	0.01uF	30%	16V
C963	1-162-306-11	CERAMIC	0.01uF	30%	16V
		< CONNECTOR >			
* CN951	1-564-214-11	PIN, CONNECTOR (B3PS-VH) 3P (XGR60)			
* CN952	1-564-526-11	PLUG, CONNECTOR 11P			
		< DIODE >			
D832	8-719-510-68	DIODE D5SBA204101			
		< FUSE HOLDER >			
FH951	1-533-217-31	HOLDER, FUSE (XGR60:AR,E,E51)			
FH952	1-533-217-31	HOLDER, FUSE (XGR60:AR,E,E51)			
FH961	1-533-217-31	HOLDER, FUSE (XGR60)			
FH962	1-533-217-31	HOLDER, FUSE (XGR60)			
FH963	1-533-217-31	HOLDER, FUSE			
FH964	1-533-217-31	HOLDER, FUSE			
FH965	1-533-217-31	HOLDER, FUSE			
FH966	1-533-217-31	HOLDER, FUSE			
FH967	1-533-217-31	HOLDER, FUSE (XGR60)			
FH968	1-533-217-31	HOLDER, FUSE (XGR60)			
		< RESISTOR >			
⚠R951	1-219-122-91	FUSIBLE	0.33	5%	1/4W
⚠R952	1-219-122-91	FUSIBLE	0.33	5%	1/4W
⚠R953	1-219-591-11	FUSIBLE	0.1	5%	1/2W
⚠R961	1-219-777-91	CARBON	3.3M	10%	1/2W (XGR6)

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Ref. No.	Part No.	Description	Remarks
		MISCELLANEOUS	
		*************	
⚠	1-569-008-21	ADAPTOR, CONVERSION (XGR60:E51)	
4	1-693-572-11	TUNER (FM/AM) (XGR60:AR,MX)	
4	1-693-573-11	TUNER (FM/AM) (XGR6)	
4	1-693-574-11	TUNER (FM/AM) (XGR60:E,E51)	
5	1-769-945-11	WIRE (FLAT TYPE) (11 CORE)	
7	1-535-706-21	PLUG, JUMPER (XGR6,XGR60:MX)	
60	1-796-333-11	DECK, MECHANICAL	
61	1-773-021-11	WIRE (FLAT TYPE) (15 CORE)	
113	1-773-118-11	WIRE (FLAT TYPE) (19 CORE)	
115	1-773-178-11	WIRE (FLAT TYPE) (23 CORE)	
151	1-823-750-11	WIRE (FLAT TYPE) (21 CORE)	
⚠156	1-575-653-11	CORD, POWER (XGR60:MX)	
⚠156	1-777-071-81	CORD, POWER (XGR60:E51)	
⚠156	1-783-820-11	CORD, POWER (XGR6)	
⚠156	1-783-941-12	CORD, POWER (XGR60:AR)	
⚠156	1-791-901-11	CORD, POWER (XGR60:E)	
556	A-4735-188-A	BU-30 (60) ASSY	
⚠F951	1-532-506-31	FUSE (6.3A 250V) (XGR60:AR,E.E51)	
⚠F961	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (8.0A 250V)	(XGR60)
⚠F962	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (8.0A 250V)	(XGR60)
⚠F963	1-532-506-31	FUSE (6.3A 250V) (XGR60)	
⚠F963	1-533-310-11	FUSE, GLASS CYLINDRICAL(DIA.5)	(6.3A 125V)(XGR6)
⚠F964	1-532-506-31	FUSE (6.3A 250V) (XGR60)	
⚠F964	1-533-310-11	FUSE, GLASS CYLINDRICAL(DIA.5)	(6.3A 125V)(XGR6)
M201	A-4660-977-A	MOTOR ASSY	
M901	1-763-072-11	FAN, DC	
⚠T951	1-433-606-11	TRANSFORMER, POWER (XGR60)	
⚠T951	1-435-797-11	TRANSFORMER, POWER (XGR6)	

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REVISION HISTORY

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Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2002. 02	New